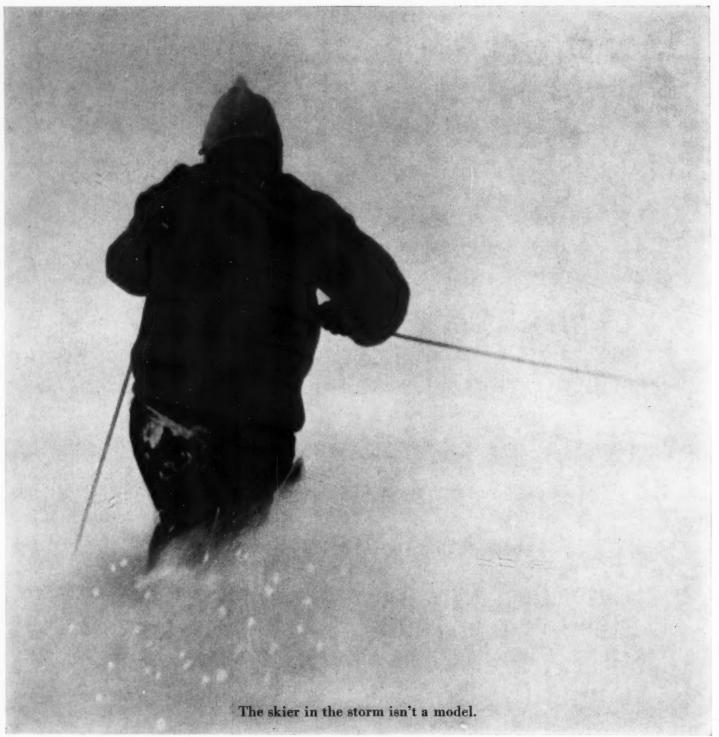


AMERICAN FABRICS NUMBER 55 WINTER 1961-62



He's a ski instructor in the town of Cour-

wayeur in the Italian Alps. His name is Aldo Vassily; the patch of blue is a new parka. Because our photographer wanted authen-ticity, Signor Vassily one day kindly put on the parka and did a few professional turns

for the camera.

The photographer got his authenticity.

And then some! The blue Italian skies turned black. The day blew into a blizzard that nearly cost him his life. In spite of it, though, he got his shot.

The next day, he packed himself home. But the parka remained in the Alps. The ski instructor had simply refused to give it up. It wasn't larceny, of course. It was love. On one of the worst days in his experience, the signor had found himself unexpectedly comfortable.

Yet, instead of piling on layers, he had zipped this jacket over one single sweater.

The difference was this. The layers are built into this jacket... not piled under it.

built into this jacket . . . not piled under it. Four lightweight layers that act as a ther-

mostat to adjust body comfort . . . to keep it constant when the weather isn't. Alto-gether, a remarkable bit of engineering that can go from a blizzard to trail's-end sun

without the business of pile-it-on-peel-it-off.

The big story here is nylon. 100% Chemstrand® nylon taffeta...the
world's best windbreaker. Check it out. See what Chemstrand nylon can do for you. For your shell fabrics. And... for your sales.



DIRECTIONS



Important fabric, Fashion and color directions for Fall, 1962



FABRIC BY RIA HERLINGER

DIRECTION NUMBER 1

Restraint For Wool Both in Texture and Color

The tenor of the mood for Fall 1962 woolens will be restrained and subdued both in color and texture. It is not too difficult to determine why this will be so. In the first place, the color pendulum is due to swing away from the bright and bold palette which we have seen for several seasons. It is inevitable that we will have to direct our thinking towards more muted colors. Of course, this will not mean lack of richness or lack of bright color. But the brightness will come from accents in accessories or trimmings.

Secondly the coming predominance of greatcoats also means that designers will tend to use woolens with more restrained surface and color. These exaggerated silhouettes, plus the use of stoles and fur pieces, call for such treatment. Thirdly, the trend has been gradually veering more and more towards smooth-faced fabrics and we can expect to find them in coatings as well as in dresses and evening wear.

Three examples of the new directions in woolens are shown here. The classic hound's-tooth check in all sizes has enjoyed a great fashion acceptance in every fabric and we predict that it will continue so. A superb example shown below is Einiger Mill's all wool fleece check with a face finish that adds a feminine fashion touch to a classic fabric weave. The oversized chevron stripe — also by Einiger — shows the same pleasing face finish. The luxurious wool with the pebbled surface weave at the top of this page is by Ria Herlinger.



FABRICS BY EINIGER

Important Pointers for Fall, 1962

- The brakes are on flamboyant colors.
- Likewise, designers are being more attracted to subtlety in weave, to subdued and smoother textures.
- Bright Navy is a favorite contender for a prominent place in the high fashion Fall 1962 palette.
- "All that Glitters" continues to be prominent in the fashion constellation. Golden ladies will be in favor.
- Specifics on the toned-down colors: Brown with green and reddish cast... Bronzed greens... Mustard...
 Amber... Pewter Grey. Two flamboyant exceptions flaming red and orange red.
- The breadth, diversity and beauty of the Chinese exhibit at the N. Y. Metropolitan Museum of Art are bound to leave their mark on fabric and fashion designers. — C.C.

DIRECTION NUMBER 2

Watch Bright-Navy for Fall 1962

For the past two fall seasons, a small fashion voice has been advocating a Bright Navy or University Blue for fall and winter. AF believes this fashion voice will be heard more loudly for Fall 1962. There are logical reasons for this trend. The average consumer is now beginning to accept the idea that her omnipresent black accesories can be smartly worn with Navy. Bright Navy is a young and flattering fall color and creates a sophisticated co-ordination with black accessories. It is also especially flattering to the older woman because it adds a strong note of animation to her face.



FABRIC BY RAEFORD

There was a time — not too long past — when black was de rigeur for the older woman but the whole fashion approach to color has changed within the past few years. While it is true that the high fashion color palette will be considerably more subdued in the seasons to come, we have now been conditioned to bright colors. Having learned what they can do for her, the older woman will not easily abandon them. And for this transitional stage, Bright Navy is a logical direction for her to take. Perhaps we have now come to a reversal of the role black plays on the fashion scene. Perhaps black may end up as the color worn only by the very young.

The Dacron/worsted/alpaca Bright Navy shown here is a fine example of this fall color direction.

(continued)



A strong fashion feeling for velvet is emerging for 1962. The reasons are not hard to find. As we go into the Fall and Winter seasons of '62, the palette will be softer, more muted and richer looking. The demand for luxury and smoothness will become stronger. Velvet fills the need, especially for late day and evening fashions where greater formality is the trend. Society columnists have been noting that the short evening dress is being replaced more and more by the longer and more elaborate gown.

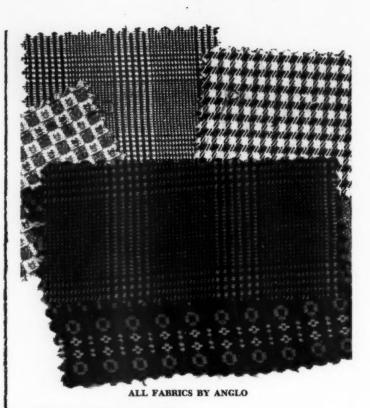
In this picture, velvet inevitably takes a featured position. And, of course, as the suit vogue develops, women will grasp the fashion possibilities in velvet, particularly when it is coordinated with the contrasting texture of a tweed. And it is not only the female of the species who is showing interest in velvet. Men, too, are finding velvet an interesting change for leisure wear at home. Some of the higher fashion men's shops are already showing velvet leisure wear and even printed velvet ties. For depth of color and luxury of hand, we swatch a 100% rayon velvet in a new shade of Bright Navy.



DIRECTION NUMBER 4

Fabrics for the Wrapped-Up Look

The enthusiastic acceptance of capes, stoles and in general, of the wrapped-up look leads to an interest in fabrics suitable for such simple silhouettes. The direction, texture-wise, must go towards the more restrained, the more smooth and the more tailored fabric. Yet such simple silhouettes demand that the fabric be interesting in its pattern and texture. Such garments naturally suggest giant plaids, giant hound's-tooth checks, donegal-type tweeds and district checks. They also lend themselves to melton cloths, the continuation of two-faced reversible fabrics and close-cropped fleeces.

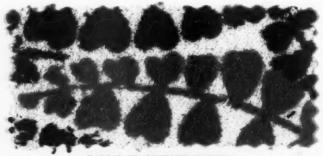


DIRECTION NUMBER 5

A Continuing Boom in Stretch Fabrics

The full fashion potential in stretch fabrics is still to come even though it is already one of the most important developments on the fashion scene. Each week brings news of new entries into the field both in terms of end uses and construction. Stretch fabrics run the gamut from wool to terry cloths to lingerie fabrics . . . all designed to give the consumer perfection of fit plus the maximum of comfort and mobility.

Two interesting examples from the new stretch fabric collections are shown here. The printed terry is by Stretch Fabrics, Inc., a company which has been the most important single factor in demonstrating the potential of stretch fabrics and in gaining public acceptance for them. This new print terry is 60% combed cotton and 40% Helanca nylon. The second example swatched above is Anglo's finely executed glen plaid in a blend of 46% wool and 54% nylon. It is designed for pants, jackets, skiwear and sportswear.



FABRIC BY STRETCH FABRICS

Your Guide to the Fashion Future...

A. F.'s
DIRECTIONAL
PAGES

New Variations, New End Uses for Foam Laminated Knits

The interest in foam laminated fabrics continues to grow in all branches of the sportswear and outerwear field. It is beginning to take on the aspects of a boom and this is not only true in our country but equally so in Europe, particularly in Britain. It is truly a development of modern scientific technology and as such it challenges the ingenuity and resourcefulness of our textile technicians.

Not only does it provide bulk and warmth without weight but it makes possible a new dimension in fashion design. It makes it possible for designers to use fabrics which were hitherto either too sheer or too unstable to be processed. And it offers the manufacturer a piece of material which is both outer shell and interlining at the same time, thus reducing manufacturing costs substantially. One of the more dramatic developments in this area is the sandwich knit shown here. Both knitted outer shell (Orlon) and inner lining (cotton) are bonded to a layer of polyuretheme foam, forming a three-layer sandwich ready for cutting up.



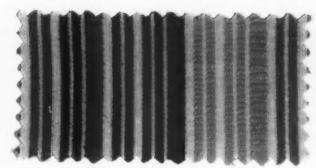
BONDAKNIT FABRIC BY ABACO

DIRECTION NUMBER 7

Further Variations on the Hound's-Tooth Check

A prime fashion favorite for many a season has been the ubiquitous hound's-tooth check. Both in cotton and wool, printed or woven, this classic motif, originally identified with Scottish district checks, retains and wins an admiring following each season. The coming year will be no exception. Of course, there is always a need to give a fresh look to the perennial favorite and we believe the example shown here succeeds admirably. It is a cotton and Arnel blend, big in scale and with a dobby effect. In this case, note how the intricate dobby weave is utilized to provide the offbeat hound's-tooth pattern.





FABRIC BY RUSSELL OF ALABAMA

DIRECTION NUMBER 8

Seersucker - Revival of a Classic

Quietly and almost unobstrusively, seersuckers have been moving into the fashion spotlight during the past season. The inhumanly hot and muggy weather has been a factor, no doubt, but equally important has been the styling ingenuity shown by some of our leading American mills. Certainly the variety and sophistication of the colorings and the stylings produced by such firms as Russell of Alabama, Avondale, Galey & Lord, for example, are truly astonishing. The range of seersucker fashions available in the market is wide and exciting... a far cry from the simple one-color stripe which was a stable men's wear classic a generation or more ago.

For the men's wear field, the one-color stripe is once again an important summer fabric, both in jackets, shirts and sportswear with new and subtle shadings of color added to the traditional black, grey and brown stripes. But in the women's sportswear field the range of colors and stripings has undergone so radical a change that it is hardly recognizable as the same classic fabric once a summer men's wear uniform in New Orleans and other Southern cities. Here again we have a demonstration of the force of color and fashion. The example swatched here illustrates the new direction for seer-sucker and its new importance on the fashion scene. We believe the trend will continue to grow.

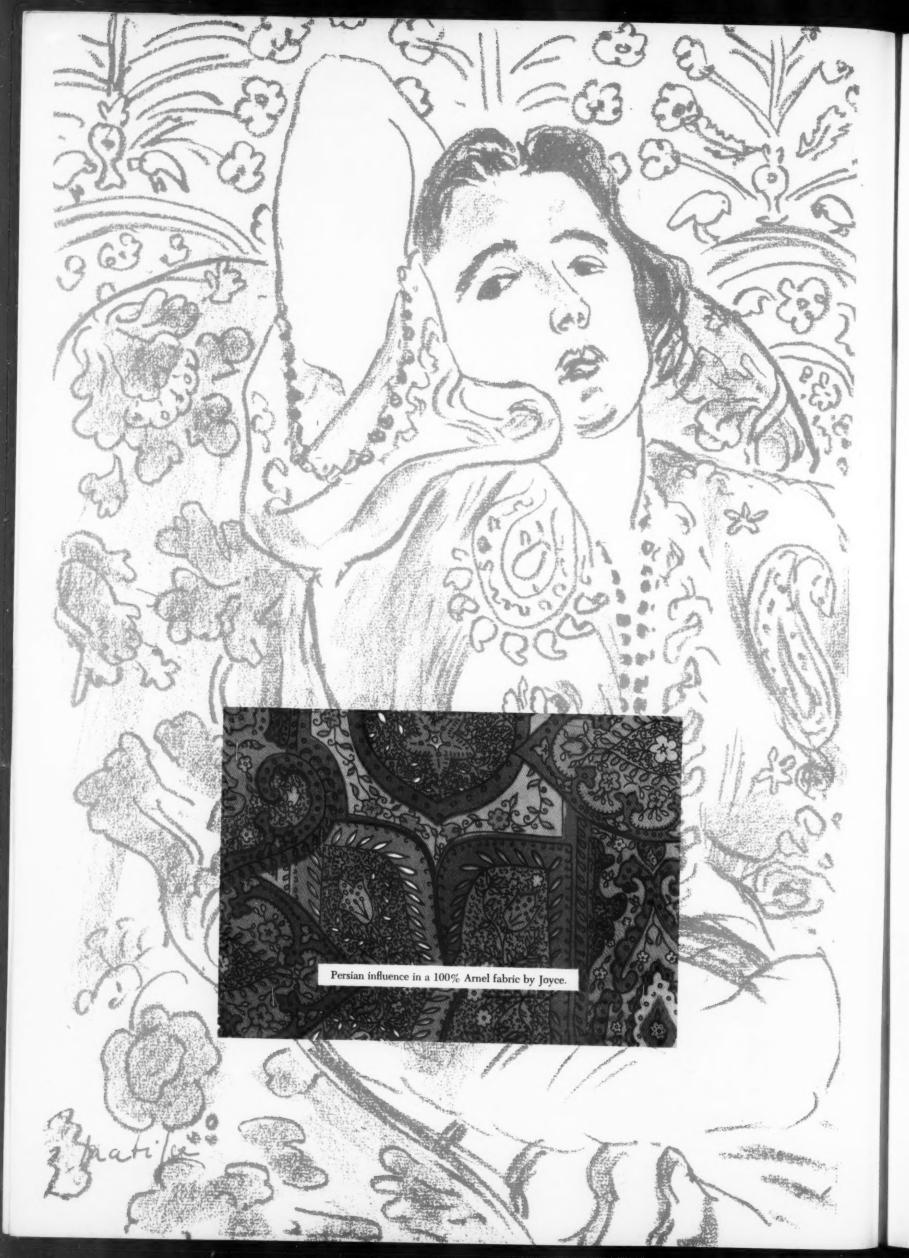
DIRECTION NUMBER 9

Cotton Jacquard with Silk Look

The steady popularity of cotton prints with the silky look has paved the way for still another fashion. We refer to the cotton jacquards which very closely approximate the silk jacquard look. These new fabrics are a result of advance weaving and finishing techniques combined with good design. An example produced by Everfast is shown here. It is one of the family of fabrics whose special coloring brings it into that company's Polynesian Zinnia promotion.



FABRIC BY EVERFAST





Cole-Mort's ensemble uses an intricate print on a fabric of acetate and nylon enriched with Lurex.

Persian Design Inspiration for a New, Rich Print Direction

Here is a new print design direction which has all the earmarks of a pace setting trend. We believe it will quickly develop into an important influence, especially in the dress, blouse and sportswear fields. While it derives from the same culture which gave us Paisleys, this is quite a different approach. As students know, Paisleys came to Scotland via India from their original Persian sources. Their designs were meticulously detailed. But what we have here is a loosely articulated and very modern treatment inspired by the original Persian sources. The Persian inspiration comes through strongly in the overall impact of the print but the rendering is loosely handled, almost in an abstract way. At the same time, the distinctive Persian design effect is kept.

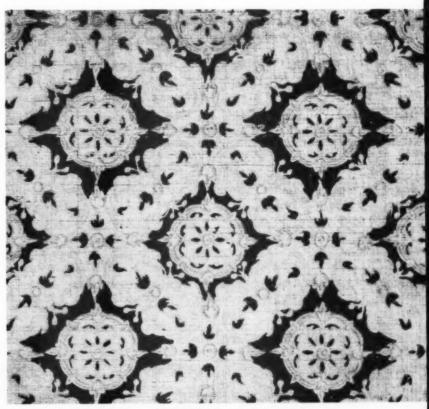
Arabesque scrolls, the palmette leaf, two-dimensional and stylized animals — all these traditional motifs come to new life when they are treated in an abstract way. Colors, too, move off in a modern direction though they derive from the original sources. The total effect is one of richness and vivid tonality which has a look that is really new. Several examples of this new print trend are shown in the swatch and photographs on this page.



100% Arnel fabric by Joyce



Persian design motifs in a Joyce print.

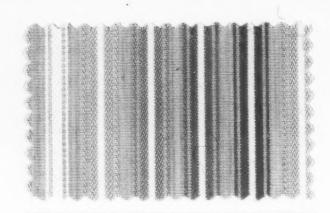


Thaibok prints on Siamese silk.





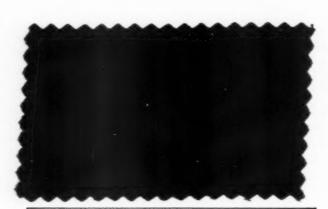
Ria Herlinger's all wool burlap weave cloth.



Galey & Lord's Tarpoon, a 2-ply combed cotton.



William Winkler's printed nylon lingerie cloth.



Julius Werk's acetate and rayon crepe "Beaudrape."

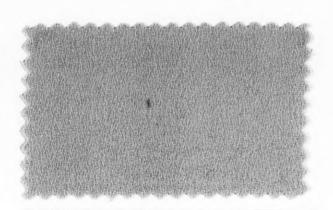
SEASON after SEASON Fashion Fabrics

In pointing out the currents and directions which fashion takes, it is important to remember the following: In this wide and great country, there are always large sections of the consumer market which are more or less faithful to specific fabrics and fashions. Certain mills and manufacturers have become well-known for specific fashion fabrics. Their sales figures on these specifics hold up astonishingly well season after season. The old adage "give 'em what they want" directly applies. A small change in color, an enlargement or reduction of a design, is very often the only change in styling.

In turn, fashion manufacturers and fashion-minded retailers, realizing the solid demand for these season-after-season fashion fabrics, have given them warm welcome and faithful promotion.

We feel it is important to keep these facts in mind when reviewing fashion-fabric requirements. The place which these season-after-season fabrics occupy in no way affects the continuing demand and hunger for what is new and different. There will always be this call for new directions; they are needed to stimulate and intrigue. At the same time, and paralleling the need for new fabrics, we must recognize the slower changing panorama of what we call season-after-season favorites.

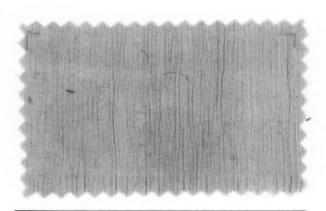
Those directions we have selected on these pages are among the typical fabric favorites which will continue to command steady and wide fashion acceptance. They represent only a sampling of the many fabric classics which have established themselves in the market.



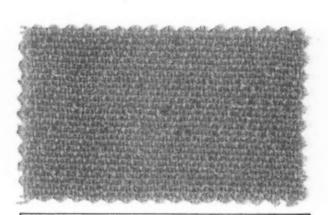
Pacific's "Verdona," a worsted sportswear classic.



A.P. Silk's pure silk chiffon print by Kanebo.



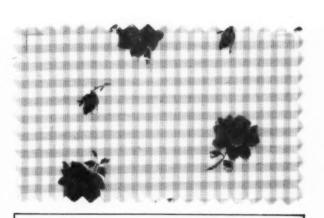
Signature Fabrics' pima cotton georgette crepe.



Anglo Fabrics' richly textured all wool bouclé.



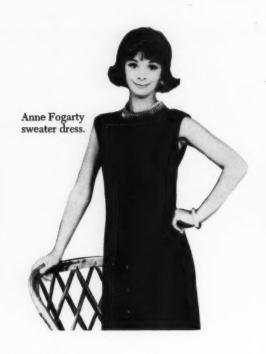
Lowenstein's combed cotton sateen in a print.



Pacific's cotton and Arnel check with a print.



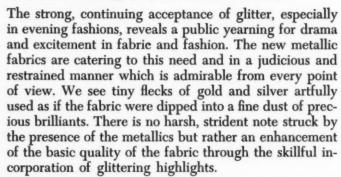
Tioga brocade is enriched with luxurious Fairtex metallic yarn.



Beckendorf brocade uses Fairtex yarns for the fashion glitter.



Restrained Glitter through the Discriminating Use of Metallic Yarns

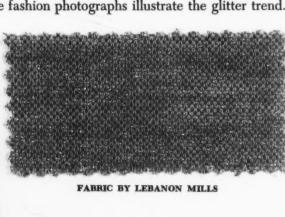


Technical developments have not only insured a yarn which is non-tarnishable, dry cleanable and washable, but have also achieved an almost weightless yarn. Lurex, for example, produces a yarn which measures 32,000 yards to the pound. As a result, gossamer sheer fabrics are now possible and they open up new horizons for softly draped cocktail and evening fashions. An especially appealing example is the knitted wool and metallic shown here. It illustrates the quality of restraint which characterizes the new metallics. It gives an additional fashion dimension to a classic wool knit and does indeed endow it with the 'je-ne-sais-quoi' which spells sales. The fashion photographs illustrate the glitter trend.



Dior's metallic and tweed.

PHOTOS COURTESY OF DOW CHEMICAL COMPANY

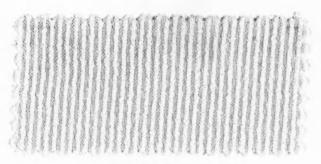




Hadley's evening

glitter ensemble.

Space dyed wool with metallic.



FARRIC BY WM. WINKLER

New Horizons in Knit Blends

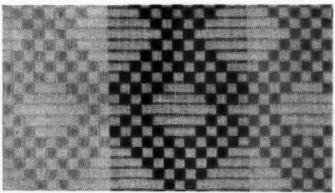
Astute manufacturers are always seeking to implement the properties of popular fabrics in order to make them better selling fabrics. A case in point is the happy combination of Acrilan, cotton and nylon illustrated effectively in the knit fabric shown here. William Winkler has taken an all-year round fabric and, through the right blend combination, has created a cloth which is wearable in all kinds of weather and for all kinds of travel. The fabric has the additional virtues of tailoring well and of taking color well in both plains and fancies. In short, here's a fabric that fits in wonderfully with the American way of life.

DIRECTION NUMBER 14

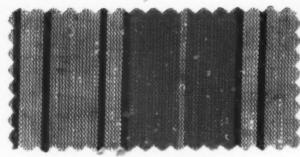
The Harlequin Trend

The Harlequin trend has come to the fore during the past few months on the French and Italian Riviera. Most of these designs were seen in prints and were especially dominant in blouses and slacks. In all types of fabric, the Harlequin theme showed up best in color combinations away from the trite and ordinary.

Dior pioneered this trend a couple of seasons ago by scoring a smash hit with black and white diamonds shot with color. His Harlequin scarf found innumerable imitators in the blouse and scarf markets here. While the word Harlequin is associated with the character Pierrot, the design theme has something very reminiscent of Americana, especially in many of the early American samplers and needlepoint creations. We think it is a direction which bears watching . . . a direction which holds little risk for manufacturers catering to the young. The photograph shows an example of this design trend in a woven cotton.



FABRIC BY RUSSELL OF ALABAMA



FARRIC BY KLERANOW

DIRECTION NUMBER 15

Nostalgic Hand Plus Fine Performance

The wedding of the primitive handicraft look to modern technology often results in charming offspring. In this machine age where people are seeking the appeal of the one without foregoing the advantages of the other, blends incorporating the best of both worlds have special fashion-volume appeal. The combination of cotton and Fortrel polyester has proven particularly good since the two fibers have an affinity for each other. No matter what the weave, a pleasant tactile quality inevitably results. An especially interesting example of a Fortrel/cotton blend is the linen-like fabric shown here. It has an intriguing random nub giving it the appearance of an expensive hand-woven fabric. Dyed in soft fashion colors, the total result is a fashion fabric of prime importance for the next few seasons.



FABRIC BY PRINCETON MILLS

DIRECTION NUMBER 16

Expanded Vistas for Pucci-type Fabrics

Like all pioneers, Count Pucci — who created a revolution seasons back — would be amazed at the expanding markets opened up by his original printed silk jersey . . . to say nothing of his all silk stretch pants, bathing suits, evening dresses, blouses and sportswear — all packable for travel. These are just a few of the fashion areas opened up for the new Ban-lon jerseys like those now produced by Princeton Mills. To the fashion lure of these fabrics has been added a special volume potential made possible by the technical knitting know-how of Princeton Mills. The sample shown has the right hand, the right weight and the right finish to make it a coming star.

Your Guide to the Fashion Future...
A. F.'s
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An Important Coming Influence:
ANCIENT CHINA



We have pointed out from time to time the undeniable fact that in this closely connected world of ours, few events are without repercussions. The areas of fashion are particularly sensitive to political, geographical and artistic events. Currently at the N. Y. Metropolitan Museum of Art a major exhibition of ancient Chinese art has begun to make an impact on the more sensitive and creative segment of the metropolitan population. Art connoisseurs, stylists, decorators, designers, publicists, are, of course, quick to imbibe from such a rich well of art inspiration.

In turn, the general public will find the influence of this

major show touching on their lives, intriguing their interest, and subconsciously influencing their fashion taste. The very wealth of the material shown, the breathtaking and as yet unexplored color and design possibilities in this art would make it seem inevitable that a Chinese trend should be in the making.

The show itself is under the auspices of Nationalist China. Nevertheless in the realm of art, literature and music, nationalist lines and prejudices often tend to disappear. What remains for us is the timeless creative fruits of an ancient and gifted people. It is to this timeless well that we can go to refresh our own creative resources.



Four Examples on Textured Linen In Home Furnishings Prints

Closely paralleling the new directions in apparel fashion prints, the home furnishings field is also producing fabrics with richness of texture and a documentary quality of design. Four examples from the new collections are shown here. All four take advantage of the subtly broken and rich, textured surface of imported Belgian linen.

- 1. BELMONT. The documentary quality of this print is reminiscent of pure Spanish design but is actually the reproduction of an Early American resist print.
- 2. KALEMOSCOPE. The abstract influence is well illustrated in this design which derives from an abstract painting interpreted for printing in a new special silk screen process which retains the subtle colors of the painting.
- 3. DAFFODILS. The Art Nouveau and stylized flower treatment is illustrated in this well articulated daffodil print.
- **4.** MORESQUE. The arabesque influence in a design inspired by Moorish grill work.

It is interesting to note that the persistent fashion appeal of linen weaves — which now embraces almost all fibers in the fashion field — is also strong in home furnishings.

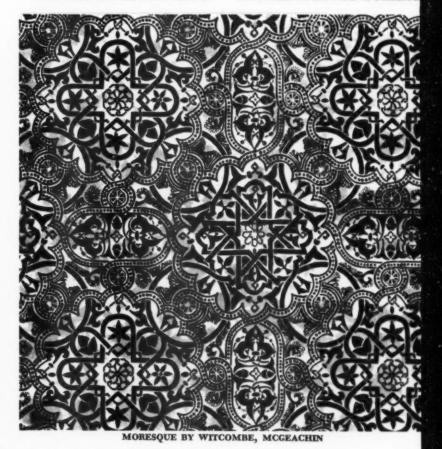




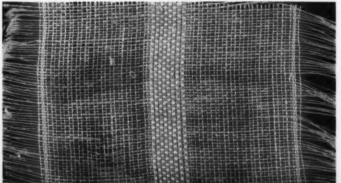
KALEIDOSCOPE BY LEHMAN CONNO

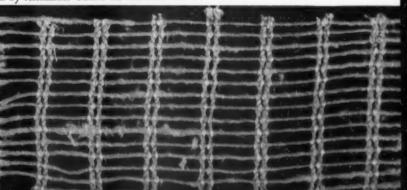


DAFFODILS BY HOWARD & SCHAFFE



Open weave linen casement cloths designed by Alexander Girard for Herman Miller.







AMERICAN FABRICS NO. 55

WINTER 1961-62

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COVER DESIGN

AF's cover re-emphasizes the Americana theme as a continuing and developing direction for the coming seasons of fashion.

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FIBER BLENDS — THE EXPANDING FUTURE OF TEXTILES

Man-made fibers have now assumed a leadership role on the textile scene. Out of their rapid development has emerged the concept of fibers and fabrics engineered and designed for specific end uses. This concept has given new meaning and dimension to the ancient science of fiber blending. It is in the union of natural with man-made fibers that the textile industries of the world will find both their economic and their social justification. An analysis and forecast by Charles de Cizancourt and William C. Segal, publisher of American Fabrics Magazine.

THE "FABRICS INTERNATIONAL" EXHIBIT

A report on a stimulating exhibit of international fabrics directed by Jack Lenor Larsen. Its aim is to challenge textile designers and producers with the inherent but still unrealized potential of machine-made textiles.

WALTER HOVING ON AESTHETICS IN BUSINESS

The Chairman of Tiffany & Co. speaks directly to all business on the need for trained taste at the top levels of management to meet the challenge of the future.

A SIGNIFICANT DIRECTION IN TEXTILE TASTE

The growing demand for a hand-made look in machine-made products, calls for an evaluation of its importance to the textile industry and the need for creative thinking to chart a course for the future. An AF Editorial.

THE HAND-MADE LOOK IN MASS PRODUCTION

A market sampling of the handicraft influence translated into mass production rugs and fabrics.

New Horizons for Nylon

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To its proven functional qualities, the first of the true man-made fibers has now added the plus factor of fashion. Over the past few years, an intensive research and development program has literally changed the face and hand of nylon so that it now bears little resemblance to the slick and shiny fiber which so captured the public imagination in 1939. Far from taking a back seat to the newer man-mades, nylon is now stretching its horizons through wide diversification and design for a multitude of end uses in the world of fashion.

FASHION FABRICS FROM THE ALTIPLANO

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Fourteen thousand feet above sea level, on the high plateau of the Peruvian Andes, a 2000-year-old textile tradition is being revived to produce handicraft fabrics and fashions for the American market. Here — on the Altiplano — live the Quechua Indians, descendants of the Ancient Incas who brought the art of weaving to a peak of perfection which has never been surpassed in the world's long textile history. This modern revival was inspired and directed by a group of young and enterprising Americans whose dedication has won success for the business known as Pinata Party.

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The British Design Centre in Manchester has become the prototype for other industry-wide centers which offer a unique service to both trade and consumer.

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THE COOSA HARVEST OF COLORS FOR FALL 1962

Coosa's color directions for Fall 1962 show a clarity of tone, a brightness of hue which is subtle and fresh without overstatement. Of particular importance is the "Touch of Gold."

THE STORY OF BORG FABRICS

In the important and rapidly expanding field of deep-pile fabrics, the name Borg stands as a pioneer and a continuing standard of high quality for the whole industry. An AF Marketing Report on its origins and its development of new uses for pile fabrics.

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When the Clipper Ships—"The Witch of the Sea" and "The Cutty Sark", for instance—were sailing for home from the Orient, the Captain's chests were always filled with lengths of fabulous goods. These exotic patterns, the strange and marvelous colorings, the very bloom and sheen are reproduced now in drapery and upholstery fabrics by a newly developed combination of Avisco rayon and Avicolor* fibers—woven by Charles Bloom especially for Lord and Taylor. These documentary Far Eastern fabrics are spice for modern and a glorious harmony with traditional schemes. In 1962 House & Garden colors. All under five dollars a yard. Above: Mori, Osaka, Fuji and Oran fabrics—making their 20th century debut at Lord and Taylor: New York and branches.

interpreted beautifully in today's Avisco® fibers Avisco® fibers

Golden moment: She sees the Forstmann label—and shops no more. It's her favorite woolen, in her color, her coat! About \$235. Hutzler's, Baltimore; Lord & Taylor, N.Y.; Marshall Field & Company, Chicago.



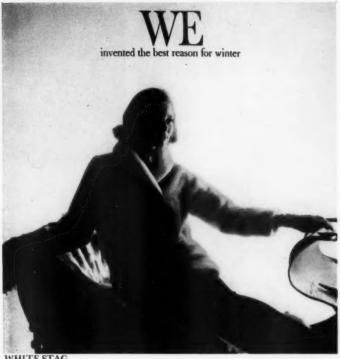


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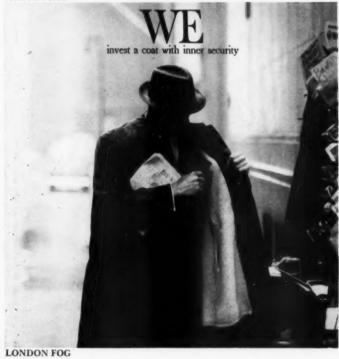




We warm up the ins and outs of fashion with SHERPA*... the most versatile pile fabric on the market







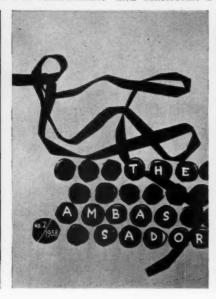


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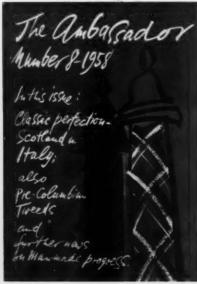
'The Ambassador', the British Export Magazine, appears monthly by subscription on the desks of leading retailers, manufacturers and designers all over the world. Specialising in fabrics, fibres, finishes, fashion and menswear, its curriculum covers also carpets, soft furnishings including household textiles, pottery and glass—in fact, everything of interest to a lively department store. The ready-to-wear industry uses 'The Ambassador's fabric coverage as a resource for new ideas and as a reference library for fabric trends. 'The Ambassador' combines imaginative presentation with factual reporting.

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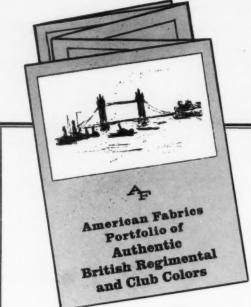
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PORTFOLIO OF AUTHENTIC BRITISH REGIMENTAL AND CLUB COLORS

55 actual Pure Silk specially selected samples each identified by Regimental or Club name
Each one Authentic • Each one a Color Inspiration \$10

QUITE ASIDE from the historical value of such a portfolio, we believe the selection of these Regimentals can be of productive reference value because of the great care which has been used in determining the colorings and patterns. The fact that these British Regimentals and School combinations have for so many years held such importance in consumer goods is (and certainly so in this country) far removed from the sentimental attachment which one might feel for "the Old School Tie" or for a certain British Regiment.

The extreme care and color-sensitivity which led to the development of each Regimental design is evident in the rather wonderful manner in which colors were selected, blended and then spaced. In the men's industry British Regimentals have always been a favorite in such merchandise as neckwear, belts and hatbands; in certain areas of women's wear they have taken hold rather well in recent seasons. It is the belief of A. F.'s Fashion Department that a much broadened market awaits British

Regimental designs . . . in silk, in wool, in cotton and in manmades; for men, for women, for students among both boys and girls, and even for home decoration.

We have gone to great expense to prepare this Portfolio of Authentic British Regimentals, to assist those who may need guidance as to the proper colorings and combinations. The portfolio is printed on heavy special paper, suitable for mounting; each of the 55 actual swatches is identified as to its historical origin. As in the past, these special portfolios covering such major design areas as Clan Tartans, Paisleys and India Madras have met with enthusiastic acceptance by our readers; therefore, the number of portfolios remaining in this edition can be offered only on a first-come-first-served basis. Please send order with check to:

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IF IT'S SILK KANEBO OF COURSE



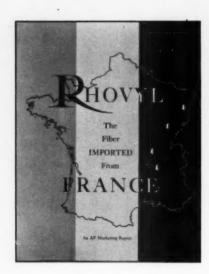


RAW SILK, SPUN SILK YARNS, SILKS. COTTON YARNS, COTTONS, WOOL YARNS, WOOLS, WORSTEDS, RAYON FIBERS, RAYON YARNS, RAYONS. LACES AND EMBROIDERIES COMBINATION FABRICS OF EVERY TYPE

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An AF Marketing Service for the Textile Industry

About three years ago, one of AF's long-time advertisers asked if the AF Advertising Department could develop a special supplement which would have the breadth and interest of the magazine's editorial approach.

The idea was carried out and was evidently sound. As a result, other advertisers approached us and to date, 25 such AF Marketing Reports have been prepared and published in American Fabrics Magazine. Each one is aimed to merchandise and promote a specific product or idea, and at the same time to reflect the special character of a company and its people. Each one comes alive through the use of fabric swatches and tip-ons. They have been compared to the successful advertising supplements published in the Sunday edition of The New York Times. A few examples are shown on these pages.

How the Job is Accomplished ...

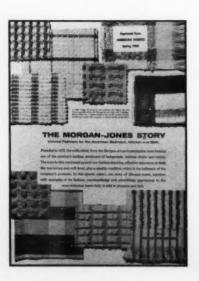
Each of these supplement sections is pre-

pared by the AF Marketing Service Department, which is specifically set up to handle this work. Each is developed in direct consultation with the client and his advertising agency. Each section is conceived, written and designed to meet the client's particular needs.

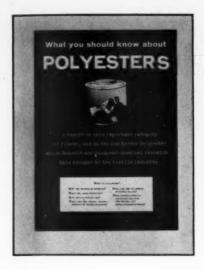
The special advantage of this approach is that it encourages readership of substantial amounts of text because it speaks to the customer from a fresh frame of reference. It is designed to be informative and educational and there is ample evidence to show that this approach has been markedly successful, encouraging response and active interest from all segments of the textile-apparel industry.



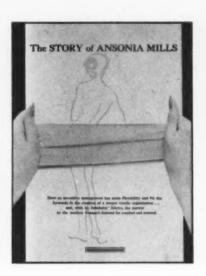














Each 8-Page MARKETING REPORT -\$10,000

The complete cost of an 8-page AF Marketing Report is approximately \$10,000. This covers publication of the report in American Fabrics Magazine. It includes all costs for design of the section, for consultation with the client and his agency, for the writing of

copy and the preparation of art, for all reproduction and swatching — and for reprints of the section — 2500 of which are supplied to the advertiser for merchandising to his accounts. A 4-page AF Marketing Report averages about \$5500 for the same elements.

The "Human" Approach

The "human" touch has been the hallmark of American Fabrics Magazine through fifteen years of publication. It is well symbolized by this photograph of little Senorita Itaka Schlubach of Taxco, Mexico, examining a "live" copy of AF, which she loves to touch.



The AF MARKETING SERVICE TEAM - How It Operates

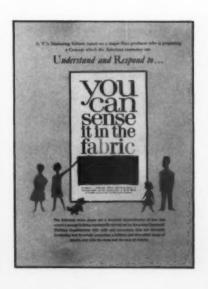
The team of experts which prepares AF's Marketing Reports has broad experience in every facet of the textile industry. It operates as an editorial board, working closely with the client and his agency to bring its specialized talents to bear on his particular needs. It has successfully tackled projects

which range from the re-vitalization of a corporate image to the launching and merchandising of a new product. Its approach is built on the successful "human" formula which has made American Fabrics one of the world's outstanding magazines during its fifteen years of publication.

If you are interested in this service for your company, contact
THE AF MARKETING SERVICE DEPT. (ATT: JOSEPH C. STEIN) AT 24 EAST 38 ST., N.Y. 16. TELEPHONE MU-3-2755.











ON THE

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IN FABRIC-FASHION HISTORY

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Russell's dotted ribbon seersucker in 100% washable combed cotton.

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THE RUSSELL MANUFACTURING CO., ALEXANDER CITY, ALABAMA

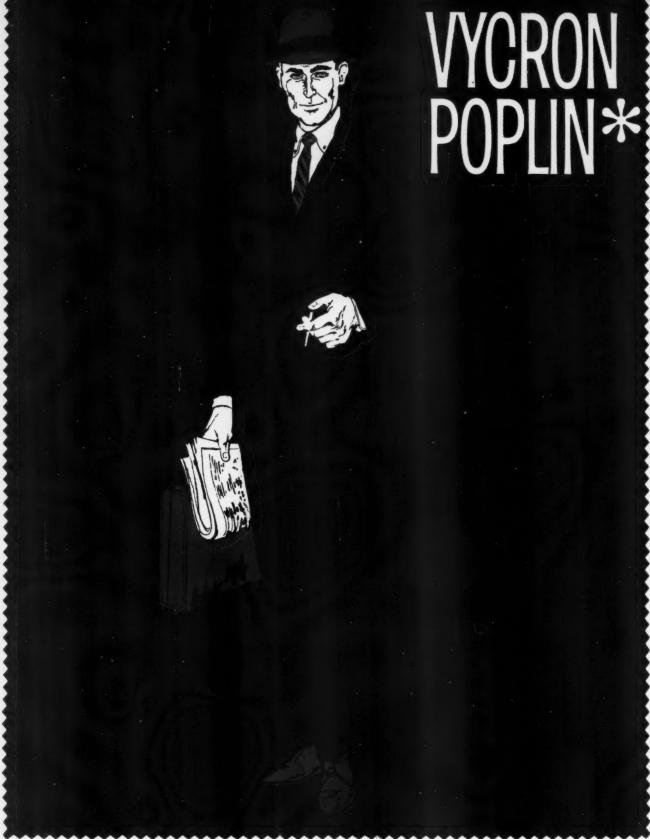




THOROUGHBRED THROUGH AND THROUGH: beauty born of our time, this new "Orlon Sayelle" acrylic fiber. And out of it, precious knits, melding the feel of the woods and the earth, the sun and the meadow. Unwavering in shape. Freed from the ancient ritual of hand-washing, blocking, moth-balling. Setting a standard of perfection for all other knit things to come. THE KNIT OF "ORLON SAYELLE"

"ORLON SAVELLE" IS DU PONT'S RESISTERED TRADEMARK FOR ITS SI-COMPONENT ACRYLIC FIBER, DU PONT MAKES FIBERS, NGT THE YARN OR FASHIONS SHOWN HERE.





TOPPLIN' RECORDS AT SAGNER

...and Sagner is just one of a host of cutters who find VYCRON polyester is ideal in poplins, batistes, knits, crashes—and other fabrics—for men's, women's and children's fashions.

VYCRON is really moving! You can move with it — now. For quick results, phone, wire or write BEAUNIT MILLS, INC., Fibers Division, 261 Fifth Avenue, New York 16, N.Y. LExington 2-3520.





ON THE MOVE-TO MOVE MORE VOLUME FOR YOU

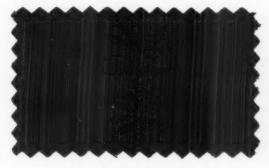


The golden era of Japan — which thrived more than one thousand years ago — brought to fruition monumental endeavours in literature, the arts, religion and creative skills. In this age too, early weavers and dyers developed fine silks that were cut into elaborate costumes exposing 12 separate richly colored garments that were worn by the noblewomen of Japan. Nichibo embodies the legacy of centuries of painstaking evolution in silk weaving skills and the most advanced techniques known to modern science into the manufacture of the finest silks and silk blended fabrics. Nichibo is the company mark identifying products of Dai Nippon Spinning Co., Ltd. Osaka, Japan.

Japan's leading producer of textile products.

Nichibo

For further information, make inquiries at established Japanese trading firms.



Nichibo Fuji Silk SW No. 142

don't fiddle around?



INSIST ON

SANFORIZED plus

CONESET.

FOR REAL WASH AND WEAR!

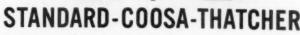
At a time when there seem to be more finishes than fabrics, customers are bound to be confused...but "Sanforized-Plus" CONESET calls the tune very neatly. It's the one finish that keeps all its promises...easy care with little or no ironing, minimal shrinkage in washing, a vanishing touch with wrinkles, and a stay-fresh smoothness. It's truly a virtuoso in wash-and-wear finishes. The Good Housekeeping Guaranty Seal says so. So do all the satisfied customers who know it, watch for it, and buy it eagerly.



CONE MILLS INC., 1440 Broadway, New York 18, N.Y. Atlanta · Baltimore · Boston · Chicago · Dallas · Greensboro Kansas City · Los Angeles · Nashville · Philadelphia San Francisco · St. Louis

COOSA Harvest of Fall '62 COLORS

"The TOUCH of GOLD"

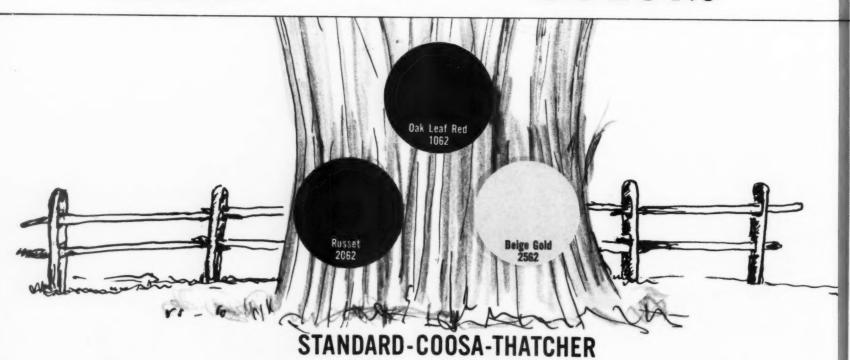


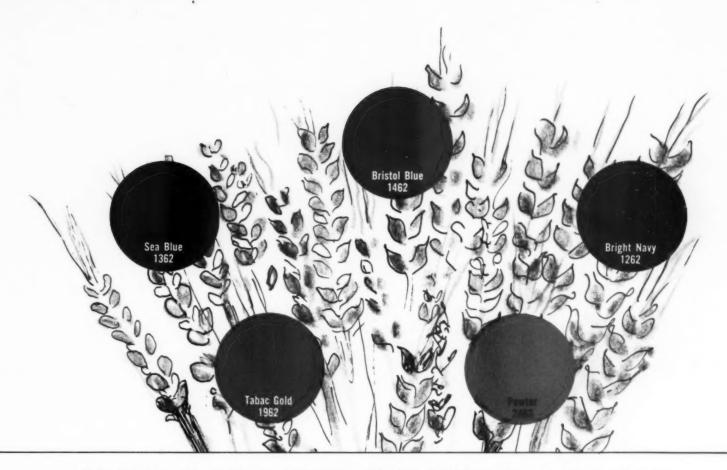
SPINNERS | MERCERIZERS | DYERS | BLEACHERS

CHATTANOOGA 1, TENNESSEE

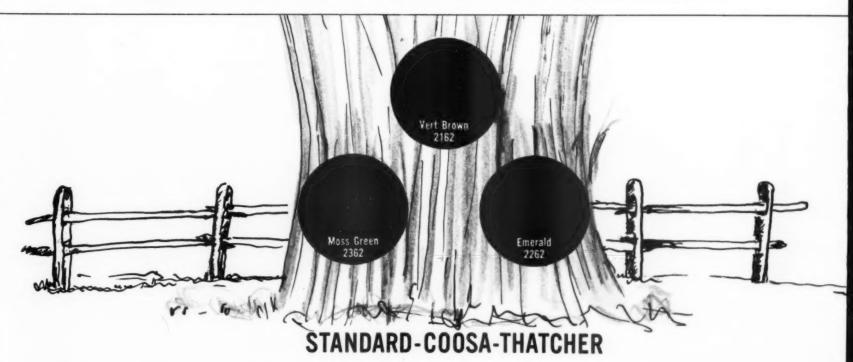


COOSA Harvest of Fall '62 COLORS





Color Directions for the Coming Fall Season of Fashion Will Show a Clarity of Tone, a Brightness of Hue, which is Subtle and Fresh without Overstatement. Note Particularly the Harvest Shades with the "Touch of Gold," an Important Color Direction in All Fields of Apparel.



A Few Words About The Coosa Harvest Tone Colors For Fall 1962

The sixteen new Harvest Tone Fashion Colors shown on the preceding pages were developed for Standard-Coosa-Thatcher by the American Fabrics' Color Council. They project ahead to the Fall season of 1962 and were designed to anticipate fashion trends now in the making. Moving away from the brash family of shades which have up to now been in the ascendancy, they strike a more subdued and mellow note which will be welcomed in the fashion market. These colors are soft, flattering, easy to wear and *new*. Many of them carry the "touch of gold" which will be an important direction in the coming seasons.

OAK LEAF RED. A rich deep red with a touch of blue for softness.

BARBERRY RED. A bright red tinged with golden orange.

ORANGE LEAF. A pure, sun-kissed orange for fashion accents.

BEECH RUST. An orange with a russet cast which shows great promise.

MARIGOLD. The shade of golden wheat which strikes the fashion note for the whole range of Harvest Tone colors.

LEAF PINK. It is neither Apricot nor Pink but a happy blend of both.

TABAC GOLD. A brown enriched with the "touch of gold."

RUSSET. Rust and red are beautifully blended for a rich but understated color.

THE BLUES. Bright Navy, Bristol Blue and Sea Blue are all important fashion shades in a most important color group.

THE GREENS. The Greens will become browner and yellower, as in our Vert Brown and Moss Green. The Emerald or Dior Green is now an established classic.

BEIGE GOLD. A strong beige, again with the "touch of gold."

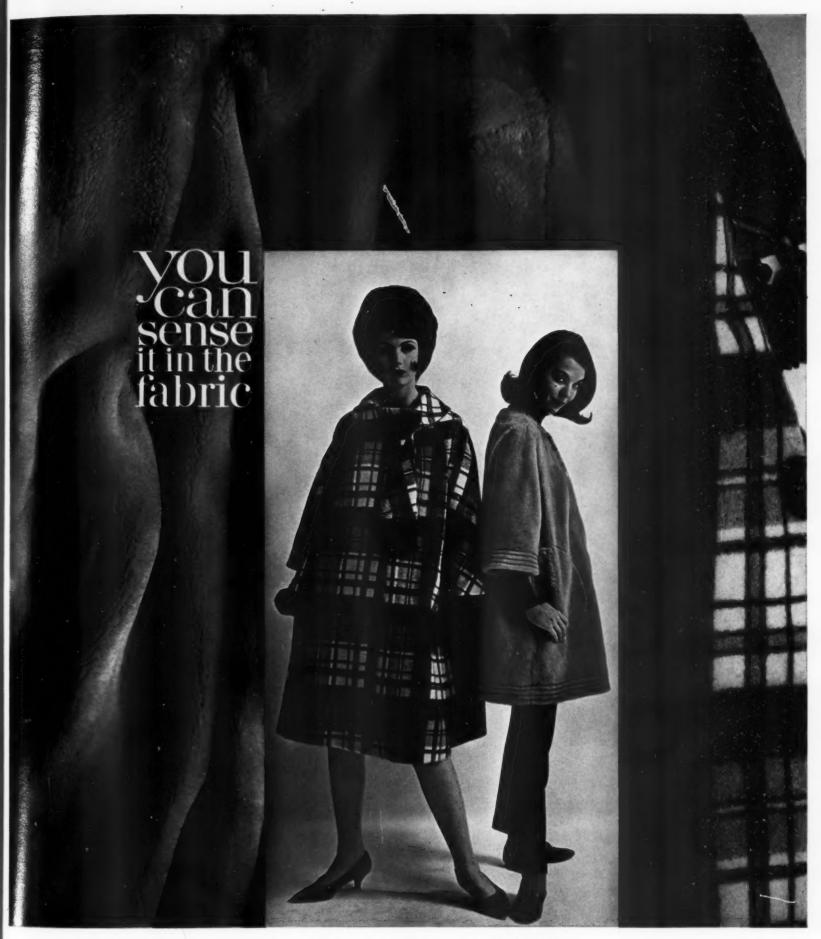
PEWTER. A classic revived, lightened with silver.



STANDARD-COOSA-THATCHER

SPINNERS | MERCERIZERS | DYERS | BLEACHERS

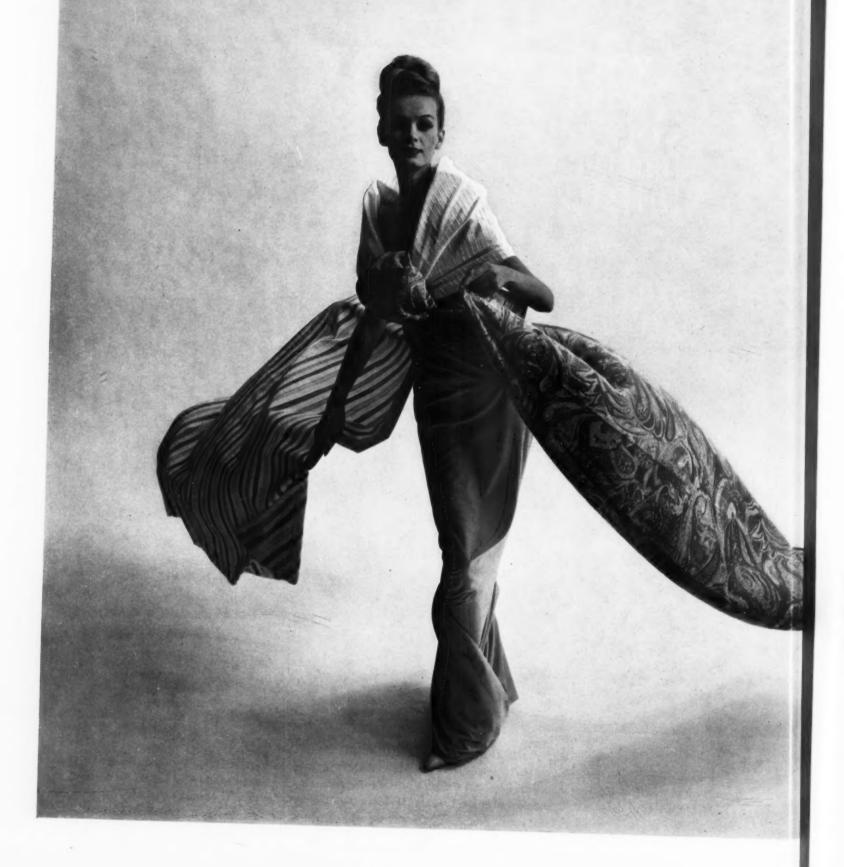
CHATTANOOGA 1, TENNESSEE



...luxury-in depth in a 2-in-1 coat by MODELIA
Live in this custom duplex nine months a year! The bold plaid facade is lined with wall-to-wall Borg pile of 100% Creslan. Then this lining snaps out to become a sumptuous short coat! Color-rich Creslan is winter's most radiant heating because it's the fiber with the Six Senses of Fashion. Sizes 4-16, under \$90. Cyanamid makes the Creslan; Modelia makes the coat. American Cyanamid Company, New York.



This is fashion with a difference ... and the difference is Fortrel



Lift. Soar. Verve. Inescapable—this feeling of a new dimension in fabrics made with Fortrel polyester. Fortrel, the new Celanese fiber. And what a surge of creativity Fortrel has already brought to the world of fashion. Whatever the forté of the

designer—Fortrel makes possible an array of fabrics that put no limit on the imagination or the down-to-earth business of practicality ... it is indeed the fiber that keeps its promise. Please call Miss Elizabeth Stout, Celanese Fabric Library, 522 Fifth Avenue, TN 7-2000. She will be delighted to show you the difference that is Fortrel. By appointment.

Fortrel
the fiber that keeps its promise

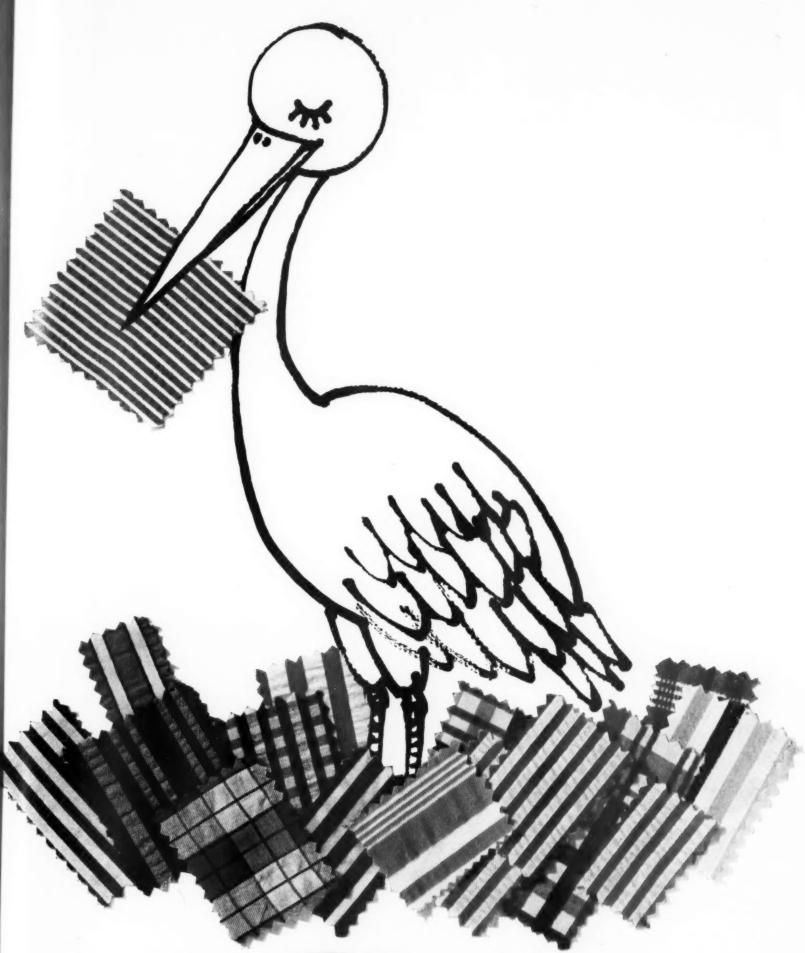
Colonese
NEW POLVESTER FIBER

Celanese® Fortrel® is a trademark of Fiber Industries, Inc.

There's a brand new crinkle in seersucker...ARNEL

Take a good established fabric classic. Make it with Arnel triacetate. Suddenly, it's a sizzling fashion success. That's what's happened to seersuckers this season. Arnel has given them the snap, self-assurance, and lasting shapeliness they've always needed. They glow with lively young color. They turn up in all kinds of new patterns, striped and checked. They wash in a wink, scorn ironing. For a look at all the brand-new crinkles in seersucker, make an appointment with Miss Elizabeth Stout at the Celanese Fabric Library, TN 7-2000, Ext. 2017. Celanese® Arnel®

*This is the official Arnel symbol—your assurance that this fabric type has been preferred for performance claimed by Celanese



Arnel...a Celanese contemporary fiber



bedspread by Nettle Creek

WEDDING RING ...another fine all-cotton by

JEREA CT

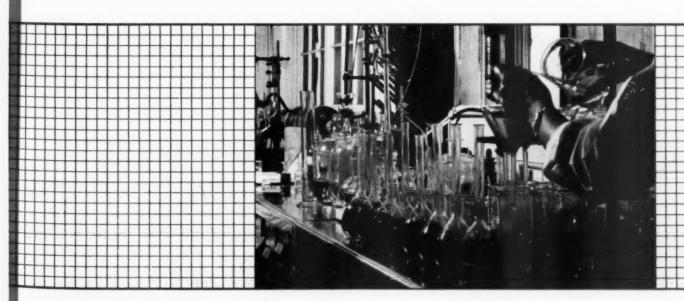
with Everglaze easy care

FIBER BLENDS KEY TO EXPANDING FUTURE IN TEXTILES



Man-made fibers are no longer substitute fibers. Today they stand on their own as a triumph of man's ingenuity and a demonstration of his control over nature. They have now assumed a leadership role on the textile scene and out of their rapid development has emerged the concept of fibers and fabrics engineered and designed for specific end uses — a concept which has given new meaning and dimension to the ancient science of fiber blending. For it is in the union of natural with man-made fibers that the textile industries of the world will find both their economic and their social justification in supplying the needs of a rapidly expanding world population and a rising standard of living among the underdeveloped nations of the earth.





TEXTILES

By Charles de Cizancourt and William C. Segal

1951 1952 1953 1954 1955 1956 1957 1958 1959 1960

FROM PREVIOUS ARTICLES which American Fabrics has devoted to the subject of man-made fibers, three basic factors emerge:

- 1. THE NEED. Man-made fibers fill a vital need in the textile economy. By the year 2000 A.D. the population of the world is expected to reach five billions. This is almost double the present world population and this means not only a vast increase in the number of consumers but also an increase of individual needs through rising standards of living all over the world. The need will therefore exist for a tremendous increase in world textile production.
- 2. THE GAP. The natural fibers alone will be unable to fill this vast future need.
- 3. THE ACHIEVEMENT. The man-made fibers, through the "miraculous" intervention of chemistry, will be able to fill all human needs in the foreseeable future.

When we translate these factors into practical statistics we see that present world textile production stands at about 16 million tons for a population of approximately 2 billion 800 million. By the year 2000 this figure will need to be almost doubled — to 30 million tons. And this is a conservative estimate, based on present patterns of consumption. If we take into consideration the anticipated growth in world per capita textile consumption and distribution, then the figure should be raised to at least 40 million tons.

EDITOR'S NOTE: The present article is the fruit of a collaboration between two men who are uniquely qualified to discuss the future of textiles from the long range point of view. Charles de Cizancourt, a frequent contributor to AF, is the French textile authority, known throughout Europe for his definitive work "The Scientific Textiles." William C. Segal, Publisher of American Fabrics, has been intimately involved with the development of textiles in this country for the past 25 years. He has traveled widely through the key textile areas of Europe and the Far East and recently received The Golden Fleece Achievement Award from the National Association of Wool Manufacturers.

Thus the world textile industries can look forward to a production increase of about 20 to 25 million tons within the next 40 years.

The present world-wide productive capacity of the manmade fibers is as yet far from being able to fill so vast a need. Today the world produces about 3 million 180 thousand tons of man-made fibers annually but its productive capacities are growing at the rate of approximately 25% each year and we may safely assume that it is capable of keeping pace with the demand. There is no risk that the men of the year 2000 A.D. will go naked.

Planning for the Future

This in itself is a considerable accomplishment for it means that in this area the human economy is for the first time placed on a sure footing. The world chemical industries — which have become the basis for our new textile industries — are no longer content to satisfy our immediate needs. They are now prepared to plan effectively for the future.

It is interesting to speculate on how these future developments will evolve. How will the textile industry shift from the "natural" to the "scientific" stage? How will we create a balance between production and consumption while the economy is in constant motion?

The answer to such questions can be found by analyzing present trends and information now available to us. It is the purpose of this article to project ourselves into the future and to evaluate the new role of textiles in the human economy.

A Shift in Social Purpose

But before we can properly look into the future we must first understand the past, and outline the successive stages in the development of man-made fibers. Above all we must understand that from the year 1900 on, the "adventure" of the man-made fibers reflects the whole history of the textile industry. And here, the most significant factor to emerge is a shift in purpose. For the textile industry as a whole — an industry which was essentially "commercial" in its orientation during the 19th Century — began in the year 1900 to take on a more "social" purpose. The very nature of the shift

to scientific fibers forced the industry to orient itself as much to the satisfaction of consumer needs as to the profits which could be extracted from the looms.

Two important concepts gave meaning and direction to the development of the man-made fibers:

THE FIRST: To duplicate nature by artificially reconstructing the work of the silk worm. This concept was projected by Hooke as early as 1664, was revived by Réaumur, strengthened by Ozanan and Audemars, and finally realized 220 years later by Swan and Chardonnet with the production of viscose.

THE SECOND: To provide for all the people of the world a man-made substance comparable to silk which up to that time had been a luxury reserved for the privileged few.

These two driving concepts — the first technical, the second social — reveal the true meaning of man-made fibers for the progress of the human economy. This gives them soul, plan, purpose and justification.

As they were realized in usable fibers, these concepts began to take on broader meaning. Limited at first to an imitation of nature, man-made fibers gradually began to change and assume greater stature as substances in their own right with new product horizons opening up before them. And as they entered the stream of industrialization and mass-production they were produced more economically — a process which is continuing at an increasing pace. In short, since 1900 the man-made fibers have developed and matured with a rapidity no one could have anticipated.

This development – though it has been rapid – has not been easy. During the past 60 years three main stages have marked the growth of man-made fibers and of the ideas which motivated their development.

I. The Period of Opposition

First came a period of reprobation and opposition to manmade fibers. This began as far back as 1925 and was largely justified because the early man-made fibers and fabrics did not live up to their promises and expectations. Moreover, the established natural fiber industry saw the man-made fibers as a competitive threat and took steps to eliminate the threat. In addition, since the early man-made fibers had appeared as substitute merchandise during World War I they were held in disrepute by consumers who saw them as ersatz products imposed upon them by necessity.

II. The Period of Assimilation

This stage in the development of man-made fibers roughly covers the years up to 1950. During these years the man-made fibers began to enter the mainstream of industrializa-

tion and mass-production. The big combines were organized to ensure their production. In France there was C.T.A. Gillet; in Britain, Courtaulds; in the U.S.A., American Viscose and Celanese; in Germany, Phrix Werke, Vereinigte Glanztoff; A.K.U. in the Netherlands; Fabelta in Belgium; Snia-Viscosa in Italy; Toyo and Kanebo in Japan etc. They, in turn, were followed by the huge chemical firms such as DuPont, I.G. Farben, I.C.I., Rhone-Poulenc, Montecatini, Mitsubishi.

This concentrated effort brought the man-made fibers into full public view and gave them an importance and a potential which the traditional textile industry could not overlook.

Moreover, the development of filament fibers was followed by the production of cut staple fibers which made it possible to process the man-mades economically on existing textile equipment.

From this point on the man-made fibers began to lose their poor consumer reputation and to advance beyond their early limitations as substitutes for natural fibers. In this area, the development of cellulose acetate represented a strong forward step because it offered a product which combined the natural with the man-made. This has not been sufficiently recognized but it is a fact that the discovery of cellulose acetate was instrumental in opening up new horizons for the man-made fiber industry. Without it, the chemical industry would not have entered the textile field so rapidly nor would it perhaps have so readily seen the vast potential for creating new and self-sustaining fibers in the laboratory.

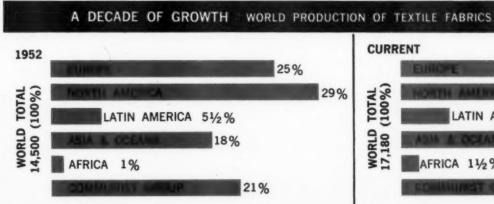
Region	NUMBER of LOOMS in WORLD		
	NO. of LOOMS	% of TOTAL	NO per 1000 POPULATION
WORLD EUROPE	3,594,220 1.141.630	100 % 32 %	1.25 3.8
N. AMERICA LATIN AMERICA	458,050 261,400	13%	2.4
ASIA & OCEANA	1,031,480	29%	1.1
AFRICA COMMUNIST GROUP	37,610 664,050	18%	0.2

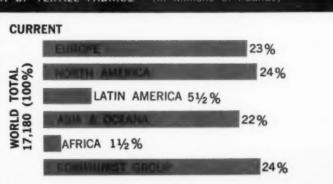
III. The Period of Exploitation

Emerging from these two periods of research and development, man-made fibers took their secure place on the world textile scene and organized their markets. By 1939, world production of rayon was about equal to that of wool. Competition between natural and man-made fibers remained strong. Commercial battle was joined between the supporters and the opponents of the man-mades and the consumer was bombarded with a barrage of propaganda from both sides.

It was during the period 1940-1945 that man-made fibers began to assume their present stature and importance on the textile scene. And it was the appearance of nylon which brought about a significant change of attitude both on the

(continued)





Expanding Future for Textiles (continue)

part of the textile industry and the consumer. It was through the development of nylon that people began to understand that it was possible to produce a quality man-made fiber for a particular end use. Into the development of nylon went 15 years of faith and prodigious activity, 15 years of careful research aimed at perfecting a fiber for specific end uses, fifteen years of taking great risks and making vast financial investments. Only today are we able to realize how revolutionary was this vision of the human mind and how fruitful was its fulfillment in the successful production of nylon.

Nylon to Polyester to Acrylic

Following nylon came the polyesters and the acrylics, each extending the horizons of the man-made fibers and each undergoing a continuing process of refinement and modification which gave them extreme flexibility and remarkable adaptability to a wide variety of end uses.

The result of this vast, world-wide program of research and development has been the creation of a group of fibers which have long ceased to be substitutes. They have now entered the mainstream of textile production, no longer as imitations of nature but as fibers with intrinsic qualities of their own which represent an undeniable advance over traditional fibers because of their high performance in use.

Man-Mades Take the Lead

The public acceptance of man-made fibers has been so immediate and so positive; the efforts of the big firms who gambled on their research and development has been so impressive and so tenacious, that there is no longer any question but that they now occupy a leadership position in the textile industry.

There is no longer any question of opposition from the traditional cotton and wool industries. Quite the contrary. The possibilities for the fabrication of new types of textiles and new blends, now revealed by chemistry, have swept the wool and cotton industries in their wake and the force of circumstances will inevitably continue this movement in the future. The traditional fiber industries have realized the vast potential offered them by the man-mades and are now working hand in hand to advance their joint future.

A Future Built on Blends

The future of the textile industry as a whole must be built on such cooperative effort. The acceptance and success of the man-made fibers is based on our modern way of life, on



THE MARKETING OF FASHION IN FIBERS

In any industry, the presentation of a new product, the unearthing of diversified uses, the creation of heightened public acceptance — these are the additional factors which make for deeper and wider distribution. Without them the best of new products can fail to reach its deserved audience. In this area American industry as a whole has made a unique contribution and the textile industry is no exception. It has many men who have the vision and the ability to create wide enthusiasm for the products developed by research.

the organization of modern industry, and it is geared to the advancing frontiers of mankind. Cooperation between the natural and the man-made fibers must be directed:

- To provide for the totality of the world's textile needs.
- To provide for such needs progressively, as they develop.
- To provide for such needs at prices which will make them available to all.

It was this kind of thinking which gave birth to the first manmade fibers sixty years ago. It continues to be the philosophical base and the justification for their future growth. And it provides the background for what is perhaps their outstanding achievement: namely, the re-vitalization of the textile industry, the opening up of new textile horizons, the re-orientation of the whole industry in the direction of progress and creative experimentation.

A New Textile Reality

Thus one outstanding fact governs the textile picture of today: the stage of competition between natural and manmade fibers is now past. No longer do we speak of the preeminence of one fiber or another. Today a new textile reality is emerging from the gigantic melting pot of the fibers and this has done away with all traditional prerogatives and every vestige of a textile hierarchy.

OUR MODERN SCIENTISTS, who are constantly probing nature's secrets through research, may well bring humanity back to its original and probably truer attitude towards nature and natural things. In earlier ages, when cotton was gathered, wool sheared and silk reeled, our ancestors did not think they were subjugating nature. Rather, they were thankful for the service nature was willing and able to give mankind. In a similar way modern science, releasing the energy hidden in the atom, making reconstructions of molecules in order to achieve new fibers, must inevitably come to a new attitude of humility and of thankfulness to nature for revealing her secrets in response to "prayers" rendered in the form of "research and experiments." Science and industry may, in the future, be less inclined to regard these results as instruments for power but rather as nature's beneficent release of additional energies aimed at enlarging the happiness of mankind. — W.C.S.

It is the very nature of the fibers of which man is now the master, that they are in perpetual evolution, that they re-create themselves continuously in response to evolving needs and tastes. Every day brings new developments on this front — in lighter fabrics, more beautiful fabrics, new applications for industry, new consumer uses, new blends for superior performance and aesthetics. As a result, there is no longer a status quo in textiles. Change and growth are the dominating forces and this has brought to the textile industry a creative spirit, an open mind, an expansion of horizons limited only by man's imagination and ingenuity.

A Need for Natural Fibers?

Does it follow that this rise of the man-made fibers must take place at the expense of the natural fibers? Does it mean that the natural fibers will gradually be eliminated from the textile picture?

Emphatically . . . No!

We believe the natural fibers are here to stay. It is doubtful that there will be any substantial increase in the production of cotton, wool, silk or linen in the foreseeable future. After all, it was the limitations of their production which gave rise to the development of the man-made fibers. However, neither do we anticipate any drop in world production of the natural fibers.

We believe the production of natural fibers — particularly cotton and wool — must continue to remain the substructure of the textile industries. Without such a foundation the manmade fiber industry would run the danger of collapsing under its own weight and over-expansion. Economically — as well as spiritually — the natural fibers fill a vital need.

We believe, therefore, that it is idle to speculate on which fibers will take over, which will dominate. The important consideration is not competition but cooperation, a blending in which each branch of the industry will have its rightful place, a unity and a harmony in which all efforts will be directed towards the achievement of a common aim.

Where Man-Mades Dominate

It would, of course, be naive to ignore the obvious fact that in certain sectors of the textile economy the man-made fibers have secured virtual autonomy for themselves. For example, in Lyon – formerly a stronghold of the silk trade – over 95% of production is now devoted to man-made fibers about equally divided between rayon and the newer man-mades. And in Japan – the world center for silk – the use of man-made fibers is rapidly beginning to dominate production. In women's hosiery, lingerie and underwear the man-made fibers have realized Chardonnet's dream of bringing luxury products, no longer tainted with privilege, within the reach of a vast mass market.

Mission for the Future

When the problem was posed in this way before the research and development services of the industry, it became clear that two preliminary questions had to be resolved:

- 1. Did the man-made fibers have the intrinsic qualities required for them to replace wool and cotton?
- 2. Was it possible to process the man-made fibers on existing textile equipment without being forced into a complete re-tooling of machinery.

Analyzing the situation as it existed at that time, it became clear to the man-made fiber industry that though rayon had quickly forced itself upon the silk industry and though the newer man-made fibers had followed the same easy path, this opened up for them only a well defined and extremely limited field of exploitation.

With cotton and wool the situation was more involved. When nylon appeared, for example, it became clear that something was lacking if it was to meet traditional needs and expectations in the clothing field. It lacked the tactile quality which is characteristic of natural fibers like wool, fur hair and even cotton. It lacked emotional appeal.

Development of Bulked and Staple Fibers

To cope with this problem the scientists immediately undertook a program whose aim was to give the man-made continuous filament a bulk and texture which approximated that of the natural fibers.

The first method developed was one in which the filaments were curled and tangled together to create bulk yarns. This opened up the whole field of bulked and crimped yarns, a development which is still in a continuous state of improvement and refinement.

The second method employed was one in which the clusters of continuous filaments were cut up into short staple lengths and then carded and spun in the same manner as wool or cotton. This second method was essentially the same as that developed for rayon staple and acetate whose big advantage

(continued)

Fiber Blends-Key to the Coming Decade

Major

SUCCESSFUL

BLENDS

WOOL AND POLYAMIDE (NYLON)

50 wool; 50 nylon
75 wool; 25 nylon
85 wool; 15 nylon
70 wool; 30 nylon
85 wool; 30 nylon
85 wool; 30 nylon
86 wool; 30 nylon
87 wool; 30 nylon
88 wool; 30 nylon
89 wool; 30 nylon
89 wool; 30 nylon
80 wool; 30 nylon

WOOL AND POLYESTER

45 wool; 55 polyester Summer clothing

WOOL AND VINYL CHLORIDE FIBER

52 wool; 48 vinyl chloride
30 wool; 70 vinyl chloride

Underwear, Infant's wear Pleated garments

WOOL AND ACRYLIC

50 wool; 50 acrylic
35 wool; 65 acrylic
45 wool; 55 acrylic

Experiment Sportswear

**Experiment S

COTTON AND POLYESTER

20 wool; 80 acrylic

35 cotton; 65 polyester Wash-wear fabrics 50 cotton; 50 polyester

COTTON AND ACRYLIC

20 cotton; 80 acrylic Sportswear

COTTON AND VINYL CHLORIDE FIBER

70 cotton; 30 vinyl chloride Velvets

POLYESTER AND RAYON STAPLE

55 polyester; 45 rayon Wash-wear fabrics 70 polyester; 30 rayon

POLYESTER AND POLYNOSIC

67 polyester; 33 polynosic Wash-wear fabrics

POLYESTER AND MOHAIR

55 polyester; 45 mohair Summer clothing

POLYESTER AND LINEN

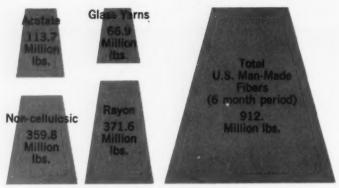
65 polyester; 35 linen Summer fabrics

POLYESTER AND SILK

85 polyester; 15 silk High fashion fabrics

ACRYLIC AND RAYON

70 acrylic; 30 rayon Wash-wear fabrics 50 acrylic; 50 rayon



U.S. Production of Man-Made fibers, January to June 1961. (Textile Organon.)

Expanding Future for Textiles (Continues)

had been that it made these fibers adaptable to existing textile equipment.

Are the Man-Mades Self-Sufficient?

But the paramount question still remained. Would the manmade fibers remain independent of the natural fibers? Would they develop as substances in their own right or would they follow the pattern of rayon staple by joining forces with the natural fibers to create new types of textile blends?

The development of blends was a tempting and logical direction for the man-made fibers but it also created a dilemma. In the early blends of rayon staple with wool or cotton, the rayon had been used to reduce costs and the end result was more a liability than an improvement in the finished fabric. In fact, in these first cross-breeding efforts, the rayon staple played the role of a shameful partner who did not dare show his face to the public.

It has taken almost a decade for this dilemma to be resolved, a decade of continuous and imaginative research in the development of improved blends designed and engineered for particular end uses. The chemical industry took the lead, developing and testing new blends and new proportions of different man-made with natural fibers. And the traditional textile industry, at first slow to respond, finally came to understand that the natural and the man-made fibers, far from being opposed to each other, were complementary. Faced by the actual facts of high performance textiles with beauty, they began to understand that the blending of two could compensate for the inadequacies of each and that it was actually possible to improve upon the properties of the natural fibers and thus adapt them to new end uses.

A Revolutionary Concept

The acceptance of this concept by the textile industry was

THE HUMAN ELEMENT IN TEXTILES

Though we speak of fibers made by man, we tend to think of their development as objective products of the machine. We often forget that it was the creativity and genius of individual men which gave birth to these wonders we now take so for granted. Without a Chardonnet in France the whole era of the man-made fibers would have been long delayed. Without a Carothers in America we might have no nylon today. Without a Whinfield in Britain we would have had no polyesters. Without a Natta in Italy, polypropylene would not have been discovered. It takes the human mind to motivate the great scientific mechanisms now at our disposal. The textile industry has had its share of such great minds and it is to these future-oriented thinkers — many of them anonymous — that we must look for the textiles of tomorrow.

slow but it was nevertheless revolutionary because in a few short years it has changed the whole structure of the industry and will continue to have far reaching effects into the future. Today this approach governs practically all laboratory research, is the directing force behind most weaving experimentations and animates the activities of the industry's key development services.

No longer do we speak of a "unique" or a "miracle" textile substance but rather of a textile substance with a varying potential, a substance which can be modified and changed and adapted to a multiplicity of end products, as the need arises. This dynamism, this flexibility is what gives the manmade fibers their over-riding importance for the future. In both quality and quantity, through blending with the natural fibers, they make possible a regulation of textile production and its adaptability to the changing needs of the times.

It is through the man-made fibers that the textile industries of the world will find the solution to their major problems. Qualitatively they solve the ever-increasing need for variety and excellence in textile products. And quantitatively they solve the basic textile needs of a vastly increasing world population. Without question, it is the man-made fibers which from this point forward will carry the banners of civilization into the future. And in this forward movement it is the chemical industry which takes the lead.

Basic Directions for Blends

What can we say of the textile blends which the future will bring? What form will they take, what proportions and substances will be used?

PROMISE OF THE FUTURE

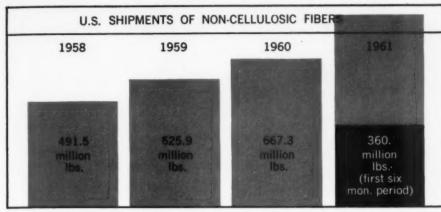
The headlines of the past few years are convincing evidence of the expanding future in store for textiles. Man-made yarns have been textured, bulked, looped, curled and crimped so that the process of natural growth has almost been duplicated by the machine. Stretch yarns have taken the fashion industry by storm. Foam backed laminates and deep pile fabrics have created whole new industries. Simple nylon has become sparkling nylon, tri-lobal nylon and moulded nylon. Special nylon and acrylic yarns have moved into a dominating position in the carpet industry. Spandex yarns and Lycra have created a whole new concept in foundation garments. New dyes and new dyeing processes have added new color and new fashion excitement to the functional man-mades. Polypropylene has moved front center on the textile stage and the old rayon has changed its character to become the new versatile rayon with new function and new aesthetics. The polyesters have simulated the hand of silk and the acrylics the hand of wool. The whole field of blends is vast and proliferating yet it is still only in its infancy. There are whole new areas still to be explored, new vistas ahead at every turning. For men of vision this is perhaps the most exciting period in the long 8000-year history of textiles and to those who feel this excitement, to those who have the sense of history being made in the present, the future is indeed full of great promise. — W.C.S.

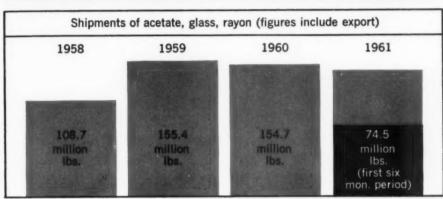
These are questions it is impossible to answer. Many new chemical substances are just beginning to be used as fibers (the polyolefins, for instance), many are still in the laboratory stage and many more are still in limbo. Moreover, we cannot now predict how the social and economic needs of the future will develop. All we can hope to do is analyze past accomplishments in the expectation that they will point the direction for the future.

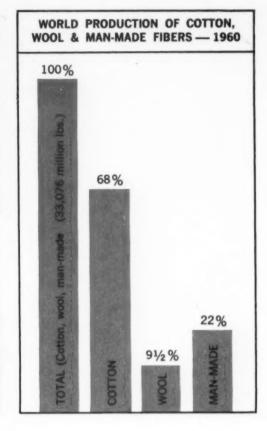
The major successful blends developed up to this point are indicated in the accompanying table. Analyzing these blends, we can arrive at three major conclusions:

1. The Quality Direction

Blended with natural fibers, the man-made fibers improve







the finished fabric by correcting the faults of the natural fibers and by adding the high performance characteristics which are their special property. For example:

- Wool by itself is not sufficiently resistant to wear and tear.
 It tends to crease and get out of shape. The addition of polyamide and polyester fiber give it the resilience it lacks.
- Wool by itself tends to felt. The addition of a polyvinyl chloride fiber (like Rhovyl) reduces this drawback.
- Wool tends to shrink and washes badly. The addition of acrylic fiber brings to the blend the properties of dimensional stability and bulk without weight.
- Cotton tends to crease in wear. The addition of polyamide or polyester fiber gives it crease resistance and a wear strength it could never have alone.

These are only a few of the quality advantages which blending brings to textiles. The process of research for new qualities is an endless one and even as this is written new virtues may be emerging from the laboratories.

2. The Design-For-End-Use Direction

In this basic function of correcting the faults of the natural fibers, some of the man-made fibers have already found a particular niche for themselves and have therefore been specifically designed for a particular end use. For example, the polyesters seemed at first adapted to fabrics for men's clothing; the acrylics for knitted clothes. But even here, change and modification is the order of the day and continuing research is constantly outmoding the practices of yesterday. More and more it becomes clear that the manmade fibers contain within themselves the chameleon-like property of being able to adapt themselves to any end use for which they are specifically engineered.

3. The Direction To Standardize Blends

The proportion of natural and man-made fibers used in the manufacture of blended fabrics is essentially dependent on their end use. But today these proportions have been established in practice and they are now practically the same all over the world. For the future this will tend to establish a standardization of blend proportions in all countries of the world. It is to be expected, however, that constant research

and improvement of present man-made fibers, and the development of still undiscovered new man-made fibers, may change this picture. From the point of view of economic need in supplying the world's future textile requirements, this blend proportion should amount to about 70% for the man-made fibers. This would result in a total world textile production one-and-a-half times greater than present natural fiber production. It is quite clear that this increase in production will not be long in developing.

The Human Need

To be sure there are many people who will deplore this evolution of the man-made fibers and will see in their growth the gradual elimination of the natural fibers. But we do not believe this is the prospect for the future. The man-made fibers cannot benefit by the total elimination of natural fibers from the world textile scene. The man-made fibers do indeed represent a victory of man over nature and as such there are no doubt many people who see them as substances sufficient unto themselves.

But all things natural deserve to be consecrated. Wool and cotton, the natural fibers, even if they were to play a smaller role in the future of mankind, would nevertheless remain endowed with a special virtue. Their living existence — as distinct from the cold effervescence of the laboratories — gives them human meaning as the fruit of nature, as the symbol of life. And as such they will always have for men a spiritual and emotional appeal which can never be duplicated by science.

In the green and growing world of nature lies a source of energy, a harmony and a beauty which is necessary and important to the human race. It is impossible to conceive of a civilization where the natural fibers are not grown to clothe man and give him emotional satisfaction. Without them he would begin to lose contact with the living forces of nature. Today — as in the past — the natural fibers are deeply rooted in our culture, are essential to our well being. It will be no less so in the decades to come. This, above all, is the meaning of blends. We need — and will continue to need — both the natural and the man-made fibers. And it is through their union — through blending — that the textile industries of the world will find the key to their future.



A CAPSULE HISTORY OF BLENDS

THE ART OF fiber blending plays so dominant a role on the textile scene today that we tend to think of it as a modern development complimenting the rise of the man-made fibers. But the truth is that blended or mixture fabrics have a long and honorable history dating back to antiquity.

Blended fabrics — incorporating a linen or cotton warp and a filling of silk — were manufactured as early as 150 B.C. Early mediaeval silk blends were characterized by a double warp of hard twisted linen threads, and of finer linen or silk threads, used as a binding warp for the silk pattern fillings. Production of wool union twills flourished in Europe in the 15th and 16th Centuries and linsey-woolsey cloths of coarse, inferior wool, woven on a flax warp, were in vogue as inexpensive decorative fabrics.

In the 17th Century, the increasingly fashion-conscious burghers created a demand for aesthetically

pleasing but inexpensive fabrics which led to elaborate experimentation with blends. Most noted results were the silk union "damas caffar," or half damasks; wool/linen unions called "caffards de village"; "siamoises" of intricate block-printed silk/cotton blends; and brocatelles which were in perfect harmony with the taste of the Baroque and Rococo periods.

The increasing interest in blended fabrics became even more noticeable in the 18th Century. "Tiretaine," a wool blend of 2 and 2 twill, with a linen warp and a low-quality woolen weft, became a best seller. Linen and cotton went into the "petites toiles," or small cloths of Rouen, and into "pelache," a kind of coarse plush. The 18th Century also witnessed the development of "ras," or serges, in a variety of silk, wool, worsted and cotton blends.

But it was the bewildering variety of 19th Century blends which served as a prelude to our own "blend thinking." A brief synopsis of the major 19th Century blends is listed here.

ALPACA: A fabric woven from the hair of a Peruvian goat blended with silk, or later with cotton, in plain weave. Fashionable from 1840 on.

ANCELIA: A dress fabric with hard-twist cotton warp and wool filling. Shortly after 1900.

ARMURE: Silk/wool blend with very fine small-repeat designs. Mid-century.

BARATHEA: Silk warp, fine botany filling, almost exclusively in black shades. Current in the 1840's.

BARPOUR: Silk/wool twilled dress fabric. Late forties.

BAYADERE: Silk/wool or cotton blend with alternating matt or satin-like lustrous cross stripes.

BENGALINE: A blend of silk warp and cashmere wool filling, usually finely corded. Often printed. Popular in 1880's.

BENGALINE RUSSE: Silk/wool blend, with watered effect of various contrasting colors. End of the century.

BOMBAZINE: Silk warp, botany filling in a fine twill weave. BONETTE: Wool/silk fabric woven with damask-like figured effects. About 1880.

BOURRETTE: Twilled wool ground incorporating silk waste yarns which gave the cloth a knotty and uneven surface. About 1870/80.

BRILLANTINE: A very fine weave of silk and cashmere wool. About 1835/40.

BROCATINE: A light-weight wool fabric figured with one-colored silk. About 1900.

CALAMANCO: A glossy cotton/worsted blend, plain-woven or twilled.

CHALLIS: Fine muslin-like cloth of very thin worsted filling and silk warp, usually white, but often printed in various colors. About 1825/30.

CHAMBERTINE: Linen/wool, light-toned. After 1870.

CORDELIERE: Wool/Spanish merino or wool/silk blend resulting in a dress serge with a lustrous, smooth finish.

COTELINE: Coarse silk/wool blend, usually black, resembling ottoman, but softer. About 1885/90.

EOLIENNE: Light-weight repp-weave silk blend for gowns, with a warp of fine, loosely-twisted gum silk and a filling of hard-twisted botany.

ETAMINE: A gauze or network cloth, also of mixed type in wool and silk, mostly used for linings.

FERRANDINE: A light-weight silk/wool or cotton blend.

GRENADINE: Light-weight silk/wool blend, plain or figured.

JANUS CORD: A black wool repp processed with cotton, for light morning wear. About 1870.

MERINO CREPE: Silk/worsted blend with a shot effect.

MOIRE VELOURS: An inexpensive silk/wool blend with large irregular designs. Shortly after 1900.

NORWICH CREPE: A silk/worsted blend in two different depths of the same shade.

ORLEANS CLOTH: A summer fabric of fine cotton warp and worsted filling.

PARAMATTA: Worsted/cotton or silk blend resembling inexpensive bombazine.

SATINE PLAYE: Wool/cotton fabric with satin-type surface and twilled stripes. After 1870.

SATINET: Silk/wool blend with satin-like stripes.

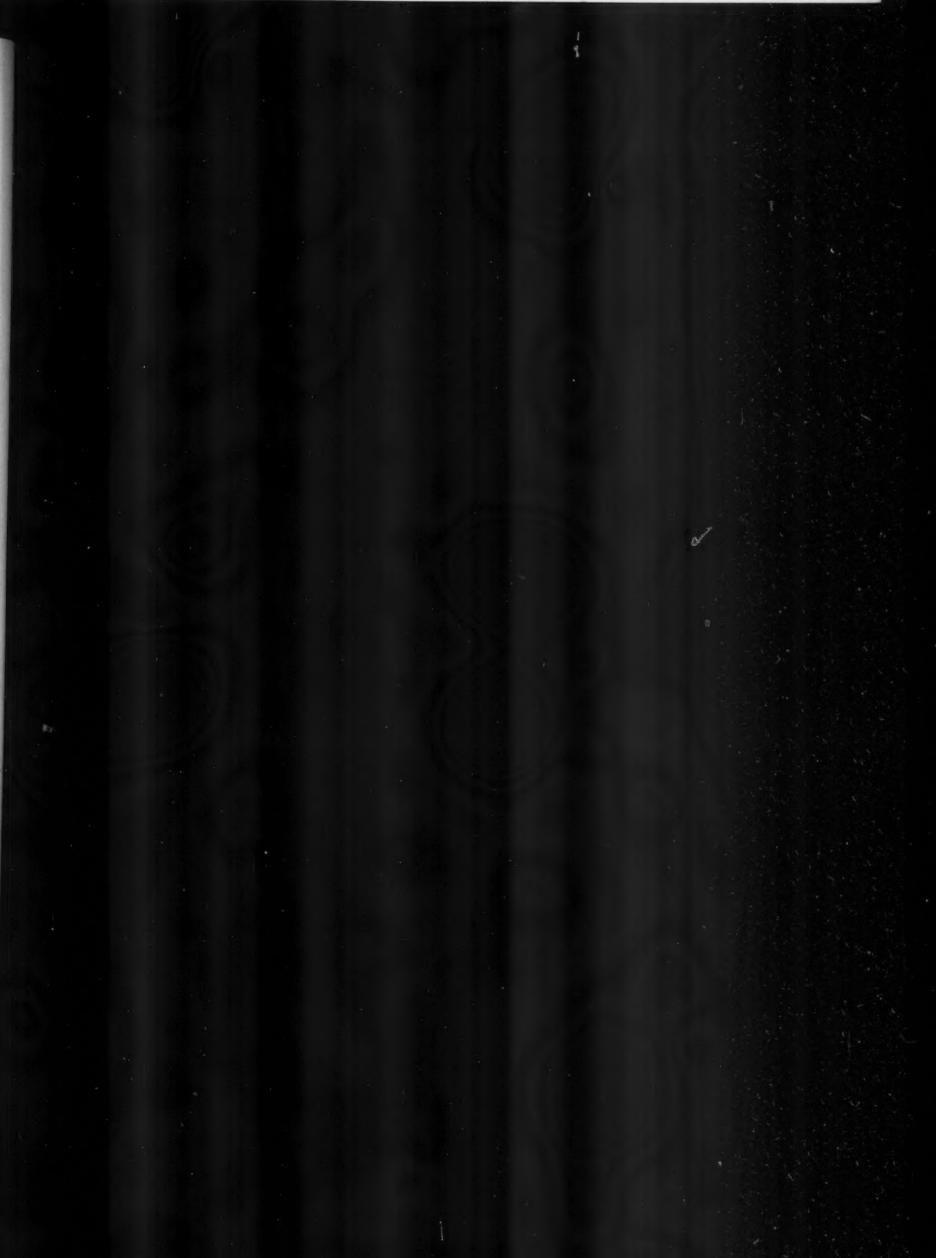
SILK CASHMERE: Very light-weight blended fabric with shot effect. About 1850.

SERGE ROYALE: A flax/worsted blended fabric with smooth surface. After 1870.

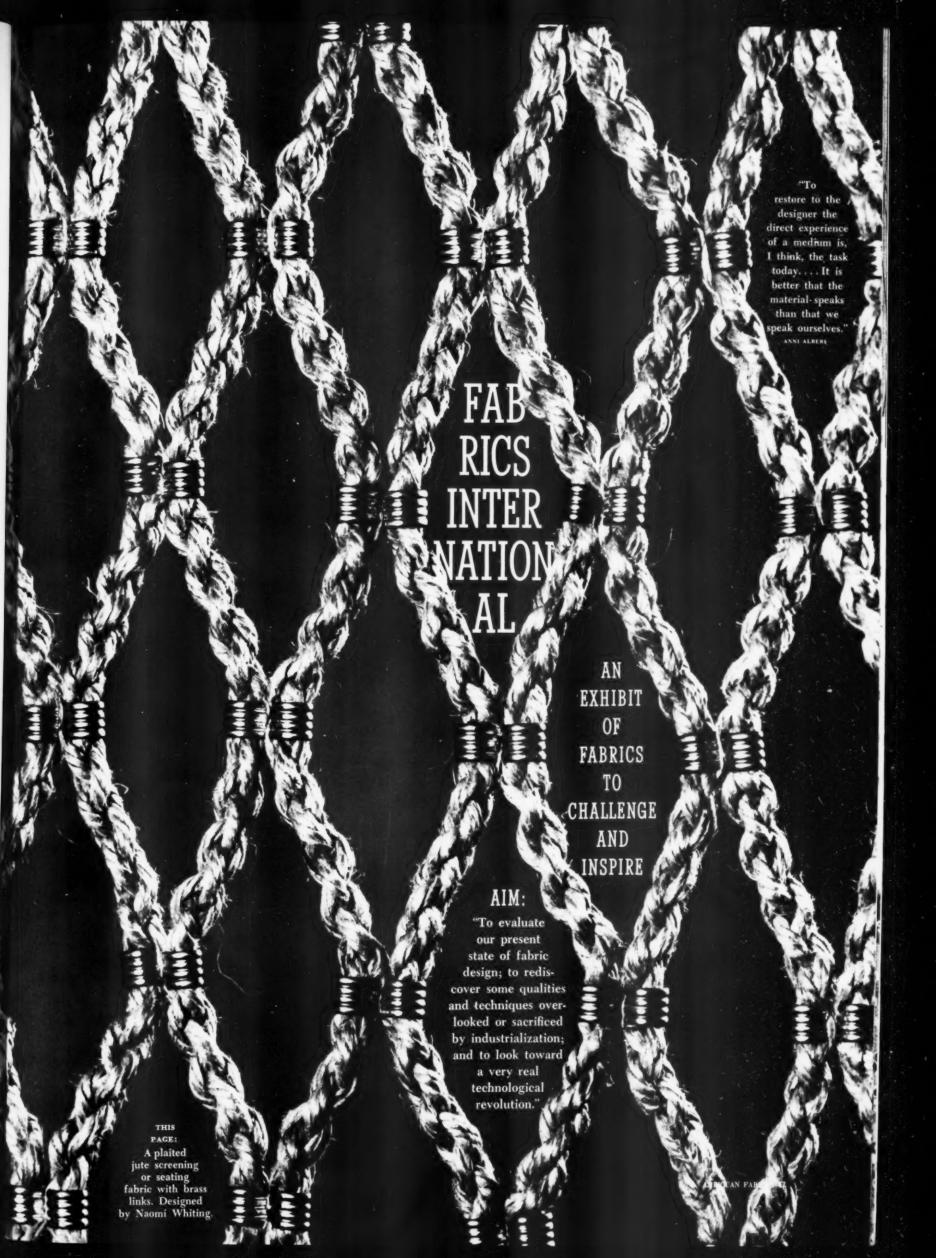
SICILIENNE: Silk warp, with filling of fine cashmere wool. TAMISE: A blend of soft wool with a small proportion of silk. About 1875/80.

UNION: A watered silk/cotton blended fabric. About 1815.

SOURCE: Ciba Review









The Fabrics International Exhibit is sponsored jointly by the Philadelphia Museum College of Art and the American Craftsmen's Council. It is directed by Jack Lenor Larsen and the advisory committee shown below.

Jack Lenor Larser



Create Deni



David Campbe



Elizabeth Willis



James Thompson



Cora Carlyle



Dean E. M. Benson

FABRICS INTERNATIONAL:

AN EXHIBIT OF MAJOR

IMPORTANCE TO THE TEXTILE INDUSTRY

No Textile Exhibit we have ever seen has been as rich in design inspiration as this collection of fabrics assembled under the direction of the ubiquitous Jack Lenor Larsen. Its avowed objective is to expand the horizons of textile designers and producers; to challenge them with the inherent but still unrealized potential of machine made textiles.

To do this, Larsen and his distinguished committee have brought together some 200 different fabrics. They represent traditional textiles from many cultures but they also represent the experimental work of modern textile designers working outside the limitations of industry. Above all, each of the fabrics exhibited has been carefully chosen with a basic purpose: to illustrate a technique or a process which can be adapted to mass production in the development of new weaves, new constructions, textures and designs.

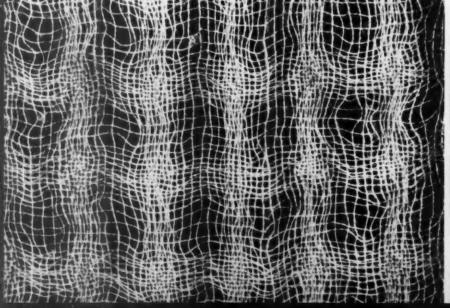
In a period when our modern textile technology need accept few limitations, when the rise of the man-made fibers has vastly expanded our textile horizons, this is an exhilarating approach for a textile exhibit. It will inevitably spur both designers and technicians to the kind of creative effort which takes the laborious but rewarding work of the human hand and adapts it to the increasingly versatile machine.

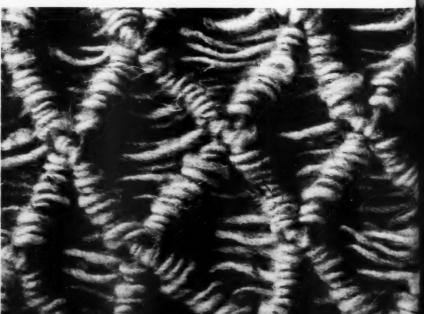
Out of the 200-odd fabrics which appear in the exhibit, we have selected a sampling of 22 to illustrate the richness and variety of the whole collection. But no photographic reproduction can hope to duplicate the meaningfulness of the actual fabric and we urge every reader of AF to make a special effort to see the whole collection.

The exhibit is jointly sponsored by the Philadelphia Museum College of Art and the American Craftsmen's Council. It has been arranged in conjunction with the College's Fabric Design Department of which Mr. Larsen is the Director. It opens in Philadelphia (Sept. 23 to Nov. 4) at the Museum College. From Nov. 17 to Jan. 14, it will be shown at the Museum of Contemporary Crafts in New York. Thereafter the American Federation of Arts will circulate it across the country for exhibit in leading museums.

(please turn)

Two experimental weavings, both adaptable to mass production. On the left, an open weave casement fabric of all mohair by Sue Goldberg. The pattern grows out of the fiber's qualities of stiffness and hairiness, giving even so loose a weave a degree of stability. On the right is a wool fabric by Sheila Hicks and Rufino Reyes. The knotted and wrapped construction is traditional with the Zapotec Indians. Warmth without weight.







LEFT. A Japanese stencil print on cotton. The design achieves variety and movement through manipulation of the stencil. RIGHT. An embroidered wool twill stripe from Bhutan. The fabric has been felted and fleeced. Could be done by machine.

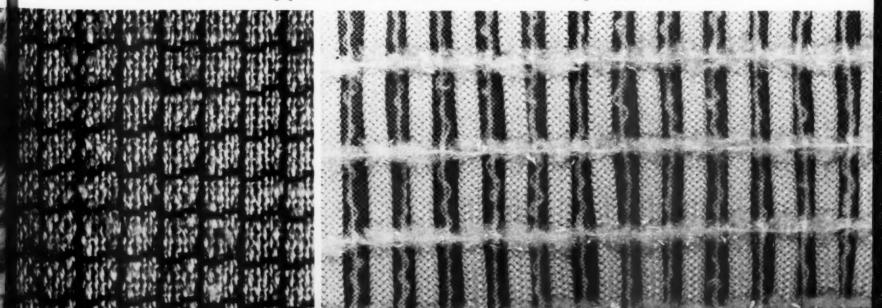


Designed by Ruben Eshkanian for native craftsmen on Taiwan, this hat is made of wood shavings (Hinoki) by plaiting with pile.



An Indian muslin, screen-printed with heavy gold paint to give the garment sway and movement. Gold paint replaces sewn beads.

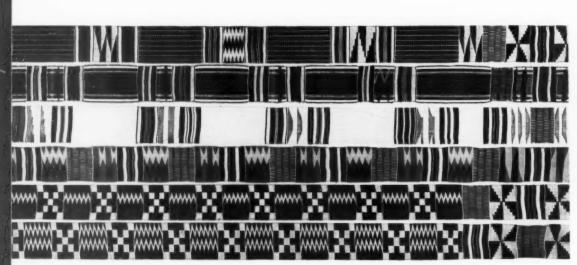
Two production weavings which get their effect by fiber and technique. LEFT. A cotton and silk suiting by Trude Guermonprez in which both warp and filling are woven in short floats. It was designed for power looming. RIGHT. A shoji panel designed by Dorothy Liebes. It combines synthetic braids and chenille with linen ratiné. Though plain woven, it has the character of a double cloth weave through the use of chenille on braid.



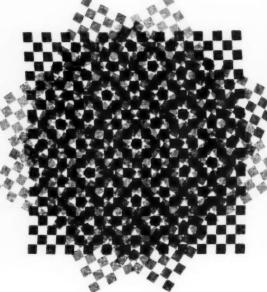


FABRICS INTERNATIONAL (continued)

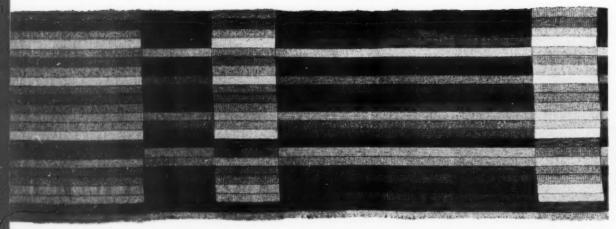
An engineered screen print on cotton from Siam. The design is carefully worked out for a wrap-around skirt. Here all is texture, with pattern on pattern beautifully integrated.



Kente cloth strips from Ghana are woven four inches wide and then sewn together. Though the idea seems impractical at first, it might well be used with narrow strips produced by the ribbon loom.

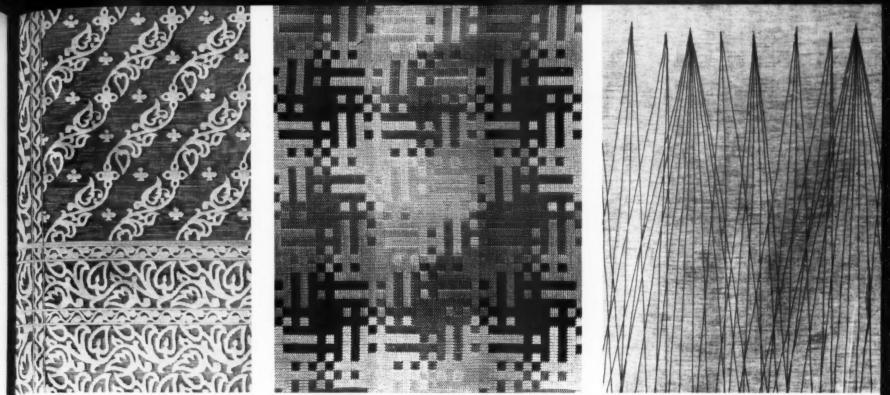


A screen print by James Howell. The designer, working as craftsman with a single screen, built up the pattern by moving it clockwise on the fabric.

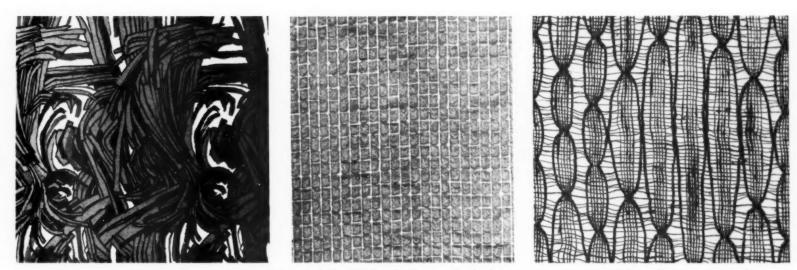


A striped double-woven cloth by Ted Hallman. The double warp and filling make possible the intricate color harmonies seen in handicraft textiles, yet are easily done by machine.

ALL PHOTOGRAPHS BY WILLIAM MAUND

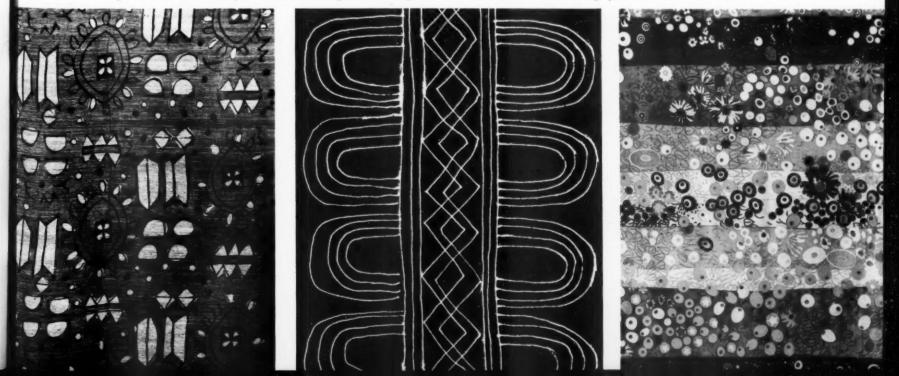


LEFT. An Indian summer sari in sheer cotton with a clipped underfloat brocade. Opaque pattern on sheer ground. Adaptable to power production. CENTER. Power loomed plaided double cloth by Galey & Lord. Here again the double warp and filling makes for great variety and play of color. RICHT. A linear jacquard by Dora Jung of Finland in a reversible linen damask tablecloth. Use of the line work is unusual in jacquard weaves.



LEFT. A strong, "primitive" screen print by Robert Dodd for Edinburgh Weavers, England. CENTER. An experimental "Kaycel" process paper of nylon web and cellulose wadding is the only disposable fabric in the exhibit. By Kinberly Stevens. RIGHT. Kay Sekimachi's open weave cloth.

LEFT. A Japanese print on woven straw used as a space divider. Center. Michael O'Connell's batik print on heavy cotton was made in Britain. RICHT. Jack Lenor Larsen's complex "Primavera" design was screen printed on cotton velvet. All the colors play over and under each other.





HOVING

ON

AESTHETICS IN BUSINESS

The Chairman of Tiffany & Co. speaks directly to all business on the need for trained taste at the top levels of management to meet the challenge of the future.

A SHORT WHILE AGO I was invited to address a conference in Manchester, Vermont, of the Eastern Association of College Placement Officers. The group was made up of placement officers from colleges and universities, as well as personnel and recruiting officers from many of the large industrial concerns in the country.

My talk was scheduled at a luncheon meeting so I decided to go there the evening before to get the feel of the situation. I milled around among the various delegates and asked a great many questions about their recruiting problems. I found, not unexpectedly, that the vast majority were looking for technical personnel. They wanted men who were majoring in science, mathematics and engineering. They were looking for chemists, physicists and technical men, undergraduates as well as graduate students because of the crying need of the big corporations for people trained in these disciplines. I found proportionately rather few who were looking for students who had majored in the liberal arts, and least of all in aesthetics.

So, I decided to give them a talk on the importance of aesthetics in business.

I described how a young engineer who, starting with an industrial company, had gradually worked himself up because he was a very able and intelligent young man. As he went up the ladder it developed that he also had a good deal of administrative ability and as the years rolled on he eventually became one of the heads of the company.

Then the subject of aesthetics reared its head. And, for the first time in his life he found himself grappling with problems he knew nothing about. Up to this point his skill in engineering had been sufficient. But, now he was to be the final word on the styling of the company's products. Not having had any background, schooling or training in aesthetics or in allied subjects, he was at a total loss. He found that he had to depend almost wholly on his own design department, outside designers, or on his sales manager who was only in a position to tell him what had sold in the past. He did what is generally done in so many businesses, he called in his fellow officers and asked them what they thought whenever new products were brought to him or old ones were restyled. Anyone who has ever been present at such a conference can picture the scene. Men who wouldn't think of expressing an opinion on law unless they were lawyers, or engineering problems unless they were engineers, begin to divest themselves of sage opinions on color, form and style, not being the least embarrassed by the fact that they are almost totally illiterate in the subject.

This is a typical story of what happens in all too many companies that make consumer products of various kinds. In so many of them the heads of the company are good businessmen without any knowledge of aesthetics and often totally lacking in taste.

We are apt to forget that although technical skills and a knowledge of science, mathematics and engineering are important, a knowledge of aesthetics is equally vital if we are to make products which will stand up against competition, especially foreign competition, because many foreign manufacturers have more taste than the average American businessman. This is not entirely surprising since the European businessman has had the advantage of being surrounded with fine art, architecture, and other cultural elements for many centuries.

Anybody who has had a broad experience in distributing products to the public can tell you that the public's taste is very much better than the taste of many manufacturers who are grinding out consumer goods today. A great deal of money is lost each year in the United States because badly designed merchandise is rejected by the public and sells only when it has been reduced to a fraction of its cost. The resultant loss runs into billions of dollars a year and comes directly out of the pockets of the stockholders.

Taste and a knowledge of good style are consequently becoming more and more necessary in the business world today and the people who have these qualities are going to be in great demand. Many companies would do well to seek help from experienced outside authorities if the heads of their product divisions are not as competent in this area as they are in engineering or other skills. Policies must be decided upon in aesthetics and carried out just as consistently as in the production, personnel, advertising or other phases of a business. It is appalling how few businessmen seem to realize this. Competent management consultants often find that companies in need of their services are generally woefully weak in this area.

Colleges and universities must realize that even technicians and engineers must acquire the rudiments of a cultural background, if they hope to function constructively in American industry today. Consequently they must inject into their curricula more courses on aesthetics so that the executives of the future will be better equipped for the many-sided challenges that lie ahead.

A SIGNIFICANT DIRECTION in Textile Taste

PHOTO BY LINDA BARTLET

When we speak of textile taste we mean to describe a attitude, a point of view, a direction which has been maturing slowly over the past decade but one whose cumulative impact has had the effect of a revolution in public taste. Specifically, we think of the current expanding interest in rough textures, in linen weaves, in loose, off-register prints, in machine textiles which approximate the qualities of the hand made product.

During the past few years this movement has grown in depth and breadth and the pages of American Fabrics have revealed its rising influence in every issue. Now, we believe, the time has come to evaluate this direction in its totality and to assess its significance for the coming period.

The trend towards the natural look in machine loomed fabrics raises questions which are important to every branch of this industry.

Why has it emerged as an important fabric-fashion trend?

How can it be reconciled to a textile economy of mass production?

What does it mean to the mill, the converter and the manufacturer?

What need does it fill for the consumer?

Why is it an important selling factor in a machine culture?

What directions may it take in the future?

There are simple, commercial answers to such questions but to assess this trend in its full significance we must probe below the surface for its larger meaning.

Today we live in a new age without quite recognizing it as such. We are generally ready to admit that we are unbelievably far removed from the nine-teenth century, but we are not so ready to accept the fact that we live almost

(please turn)





CONTINUED FROM PRECEDING PAGE

equally far removed from the world we knew in the first half of the 20th Century. Yet, in fact today's epoch has evolved in a way which differentiates it completely from all previous epochs.

Consider these achievements of our modern world:

- 1) Atomic power for manufacture on a virtually inexhaustible scale.
- 2) Cybernetics the power of machines to think like men.
- 3) Macromolecular chemistry the power to build new materials with pre-determined character by synthesizing the chemical units.

In this extraordinary epoch in which we now live, products made by human hands would appear to be an anachronism bequeathed to us by the Middle Ages, with their glorious flowering of the crafts and craft guilds. And yet today, in Fifth Avenue's luxury shops, fine hand-made articles in silver and gold, in textiles and leather, are not only abundant but command premium prices.

Is this just a symptom of public sentimentality about the past, or can it be the expression of some basic, undeniable need in human nature? This is a question seldom posed but one on which billions of dollars are annually committeed.

It is a question which is vital to almost every branch of the textile industry, and its significance becomes clear when we examine a few of the trends which have recently received endorsement from the public: There have been paisleys, originating in Kashmir; Madras designs from India; batiks from Indonesian sources; warp prints, a variation of the oriental Ikat technique; as well as a wide range of prints, weaves and yarns inspired by the hand-made look. In each and all of these examples the special distinguishing feature is drawn from ancient traditional hand techniques practiced in various quarters of the globe.

These trends have influenced our modern designers precisely because they are based on the *craft* of weaving, a combination of appeals in construction, color, design and motif, which can easily be adapted to modern machine production.

It is undeniable that the superlative machine standards of the American textile industry are a guarantee to the consumer of high quality, low cost, and fine performance. Yet it is in the human, hand-made element that fashion, decorative inspiration and selling appeal are invariably found. The swatches in any recent issue of *American Fabrics* will illustrate this point. A large proportion of them reveal a design approach directly or indirectly derived from hand-made fabrics.

Here we are not dealing with any public sentimentality for a bygone tradition but with the practical appreciation of fine qualities which is rooted in human nature. It has been our mistake until recent years to assume that these subtler



qualities are alien to the machine and should not be looked for in volume products. But such an attitude is now obsolete. Today, is there anything which our technicians cannot accomplish?... One thing only, the creative thought of the artist-designer. And this can be achieved through the medium of the hand-made product which gives it first expression.

Here the relationship between the hand worker and the machine technician begins to emerge clearly. The first is a vehicle of interpretation for the designer; the second for the mass market. And there are virtually no limitations. We have been approaching this textile nirvana ever since Jose-Marie Jacquard invented and perfected a machine for producing hand effects in a machine-loomed cloth. Its use of punched cards predated the electronic computer, was the forerunner of many other devices and it made possible such engineering miracles as the Leavers lace machine. Today, the jacquard loom seems a relatively primitive affair and the new resources of electronics have given us many elaborate mechanisms for spinning, weaving and finishing which duplicate the work of the human hand many times more rapidly and accurately than could ever have been achieved by the most highly trained craftsmen.

Such devices, more and more, open up to the volume market the fine craft techniques which were luxuries yesterday. They, too, are a part of our new epoch.

There is a growing audience for sophisticated product ideas in this country today and it can no longer be assumed that price alone is the dominant factor in the volume market. The level of American public taste has fostered and in turn been influenced by a vast expansion of foreign travel, by the importation of foreign films, foreign cars, furniture, ceramics, foods and other commodities, to say nothing of the developing interest in our own indigenous American handicraft traditions.

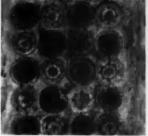
The attitude of the consumer is mainly dependent on leadership. We have already noted some of the recent fabric trends which the consumer has endorsed. Leadership in this direction is the surest builder of sales today.

There seems no doubt that this trend is likely to continue. There are always plenty of fabrics in the market which perform well, within a given price range, but sales go to those which, for one reason or another, have the greatest fashion appeal. And today the hand-made influence has that appeal.

The revolution in textile taste is the latest in a continuing series of revolutions which have brought numerous changes to textiles within the last few decades. There has been a revolution in fibers based on new macromolecular chemistry; a revolution in finishing based on new resins and silicones; a revolution in color based on improved dyes and a more sophisticated level of taste; a revolution in wash-and-wear based on new synthetics and combinations. The revolution in taste is no less important than these because through it the American textile industry is bringing more exciting fabrics within the reach of more people, leading us to a new epoch of greater culture, sophistication and abundance in the American way of life.

Hand-Made Look In Mass Production

The theme explored in our preceding editorial finds demonstrable expression in the products photographed on this page. They are only a sampling of this significant fashion shift to the hand-made look in machine-made products. Our readers will undoubtedly document this direction further with examples of their own. A particularly dramatic documentation is the Bigelow rug shown here, since the various stages of its development from handicraft to machine product are photographically recorded. But the fabrics shown are equally significant. This is a direction the textile industry should watch closely.



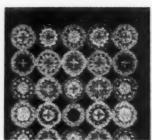
1. Design sketch for Ring Dance rug by hand-weaver in design competition conducted by Bigelow in Finland.



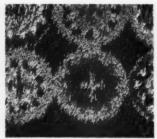
2. Hand-woven swatch of the design made in prepara-tion for adaptation to machine by Echo-Weave process.



3. Detail of production design by which Ring Dance was adapted. Thirteen colors are used in the copy.



The actual rug as woven by Bigelow closely follows original design, has character of Finland's Rya rugs.



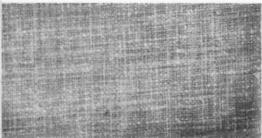
5. Detail of production rug shows how *Echo-Weave* process duplicates loft and texture of the hand-woven swatch.



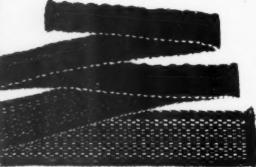
Kirsti Innari-Winqvist, Finnish hand-weaver, who won Bigelow award for the Ring Dance in competition.

HAND-MADE RUG ADAPTED FOR MACHINE PRODUCTION

Room setting shows how Bigelow's Echo-Weave process achieves hand-crafted depth and texture.







The Web Tie by Jack Lenor Larsen for Tucker Ties adapts pre-Inca technique of shape weaving to the modern ribbon loom. Shape is woven on the loom.

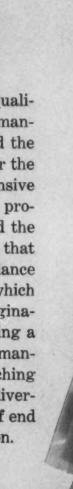


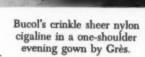
Concord's all cotton "Homespun," an extremely popular fabric, has the handmade look in machine-made cloth.

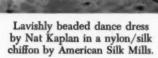
NEW HORIZONS FOR

NYLON

To its proven functional qualities the first of the true manmade fibers has now added the plus factor of fashion. Over the past few years, an intensive research and development program has literally changed the face and hand of nylon so that it now bears little resemblance to the slick and shiny fiber which so captured the public imagination in 1939. Far from taking a back seat to the newer manmades, nylon is now stretching its horizons through wide diversification for a multitude of end uses in the world of fashion.













The new directions for nylon are clearly marked in the luxurious fashions shown here and on the preceding page. Left. Jacques Heim's theater coat uses Marescot's black nylon lace over Hurel's mousseline of sparkling nylon/silk. Center. Lanvin-Castillo uses Dognin's white nylon tulle in an evening gown with a new silhouette. RIGHT. Rosalie Macrini's "Madame X" evening gown in Winkler's brushed tricot of DuPont nylon.

NEW HORIZONS FOR NYLON

FIRST INTRODUCED commercially in October, 1939, nylon has now reached its majority. In the fast-moving world of the man-made fibers 21 years is a venerable span of time. In the course of these 21 years the whole structure of the textile industry has been revolutionized. So many new fibers and processes have emerged to compete for public attention that we have been conditioned to forget yesterday's miracle in favor of tomorrow's new wonder.

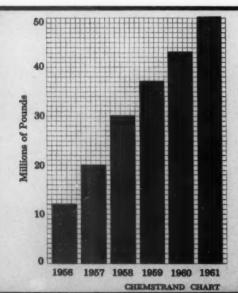
And so — as the newer man-made fibers began to proliferate on the textile scene — there developed a tendency to take nylon for granted, to put it in second place. But its sponsors did not forget it nor did they abandon their research efforts to improve upon the original product and move it in new directions. Research and development has been in process since 1939, reaching a peak of activity in the last two to three years. As a result we have seen a continuing series

of discoveries testifying to the growth and maturity of nylon. Naturally, no one of these developments by itself could be expected to achieve the drama and newsworthiness of the newer scientific fibers, but their cumulative impact has been equally impressive.

Today, nylon in its many forms is a far cry from the relatively simple monofilament which Du Pont's Carothers discovered in the Twenties, and it is our purpose in this article to review its progress, pinpoint the major areas of its development and indicate its future direction.

How Fibers Are Changed

In our present stage of chemical and textile technology there are seven basic ways to modify a man-made fiber:



NYLON'S BEGINNINGS AND GROWTH

Nylon, which is technically known as a polyamide fiber, was a direct development of Du Pont chemists. The name itself, a generic term, was coined by Du Pont. Since it does not use natural cellulose as its base, it is considered the first of the truly synthetic fibers to be commercially produced.

Nylon was the outgrowth of a fundamental research program devoted to the study of polymerization — how and why small molecules unite to form giant ones — which began in 1927 and was carried on by the late Dr. Wallace H. Carothers and his staff at Du Pont.

In October, 1938, Du Pont publicly announced the discovery of nylon. During those eleven years Du Pont estimates it spent \$27 millions in research and development.

Public reception of the new fiber was unprecedented. In February, 1939, the first nylon stockings were produced in Du Pont's pilot plant operation. They were displayed at

the San Francisco Exposition and in October, 1939 they went on sale through retail stores in Wilmington. By December of 1939 Du Pont had built its first commercial nylon plant and on May 15, 1940 nylons were offered for sale simultaneously in stores throughout the country.

The first complete costume of nylon was shown at the New York World's Fair in 1940 and thereafter limited quantities of nylon apparel began to appear on the market.

But in February, 1942, nylon went to war and all production was assigned to military needs — parachutes, glider tow ropes, jungle tents, tarpaulins, and tire cord for heavy bombers.

After the war nylon came back into the civilian area and the process of diversification began. Today there are 11 companies — in addition to Du Pont — who make nylon in one form or another in America, and many more producers in all parts of the world.







Further demonstrations of nylon's new versatility. LEFT. An evening costume by Madeleine de Rauch from the current Paris collections. It is made in Hurel's shimmering copper mousseline of sparkling nylon and silk. Center. Christian Dior's romantic evening gown in Dognin's gold nylon tulle. RICHT. Jacques Heim's asymmetrical silhouette in a Bucol fabric of nylon sheer with a gold metallic dot of Chromeflex.

Now twenty-one years old, nylon has long ceased to be simply a functional utility fiber. It now occupies a secure place in the world of fashion and its future is full of promise.

- Chemical modification of the polymer to change the fiber's molecular structure.
- 2. Structural modification of the fiber's cross section.
- 3. Changing the total denier or size of the yarn.
- Changing the fiber's length from continuous filament to short staple.
- 5. Texturing the yarn by bulking, crimping, looping, etc.
- 6. Changing the luster of the yarn.
- 7. Effects achieved through finishing the fabric.

All these factors have come into play in the modification of early nylon in order to diversify it for a multitude of end uses. In effect we no longer have *one* nylon; we have a wide family of polyamides, each showing special properties, each designed for different end uses.

The first polyamide was known as nylon 6-6. Today we also have nylon 6, produced by a different process. There are many variations of both 6-6 and 6. In addition there is nylon 4, and in Europe there is nylon 11.

Simple Knits to 3-Dimensional Textures

When nylon 6-6 was launched commercially in 1939 its fashion uses were generally concentrated in the area of intimate apparel. Until approximately 1948 it was chiefly marketed as continuous filament for basic knit constructions in women's and men's hosiery, in lingerie and foundation garments.

In 1957 Du Pont introduced its *Tissue Tricot*. This was followed in 1959 by *Sparkling Nylon* with its pin-pointed, diamond-like luster and in January, 1960 by its *Tricot Satin*-

(continued)



Nylon sleeping bag illustrates one of the many functional uses of this versatile man-made fiber.

The stretch shirt for men is a growing fashion. This one is by Hickok in stretch nylon by Chemstrand.



Nylon velvet by Martin Fabrics in a Yolande dress.



Moulded nylon lace was developed by Liberty Fabrics and Chemstrand and points to a completely new direction for nylon. It is completely washable, never loses its shape and makes possible the elimination of all seams.

NEW HORIZONS FOR NYLON (continued)

ette, achieved through a pre-engineered combination of special yarn denier and fabric finishing. More recently (in June, 1960) Du Pont achieved a major fashion breakthrough with its Antron trilobal multifilament nylon. Both Sparkling Nylon and Antron involve a trilobal modification of the fiber's cross section, making possible 3-dimensional textural effects, a dryer hand, more opacity and the ability to accept dyes with great sharpness of definition.

Textile Building Blocks

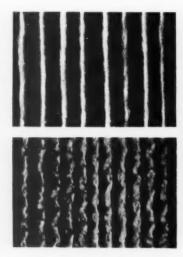
From such developments as these there emerged an architectural concept of fabric construction through which the modern textile technologist utilizes a pre-determined combination of textile building blocks to achieve a particular fabric structure. For example, a certain type of *de-lustered* jersey fabric of Antron for women's blouses is achieved by using the following components:

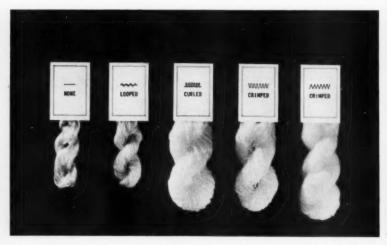
- 1. Tri-lobal cross section fiber.
- 2. 40 denier yarn.
- 3. 13 filament fiber.
- 4. A de-lusterant chemical.
- 5. A special fabric finishing process.

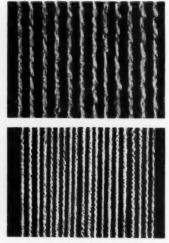
Texturing Expands the Market

In the meantime impressive developments were taking place in the area of yarn texturizing and this vastly expanded the market and the fashion end uses of the polyamides. It literally changed both the hand and the face of nylon by filling the gap between the filament and the spun look. Today we have stretch nylon, both woven and knitted, in all types of apparel and industrial applications. Other types of textured nylon appear in bulked, looped, crimped and curled forms. A list of the major processes available in this area indicates the radical changes which have taken place in a few short years — Agilon, Ban-lon, Fluflon, Helanca, Saaba, Spunized, Superloft, Taslan textured, Textralized Bucaroni and Tycora.

If the research activity of the past few years is any indication, we are now only at the beginning of nylon's new development stage. Almost every week we have announcements of still newer developments in nylon. At the last count the leading producers of nylon in this country — Allied Chemical, Chemstrand, Du Pont, Enka and Industrial Rayon — offered between 25 and 30 types of nylon, each aimed at specific end uses from the sheerest of fashion fabrics to the heaviest of upholstery and carpeting.







The photographs above demonstrate the effects of bulking on Allied Chemical's Caprolan nylon. By combining different deniers and plies it is possible to obtain thousands of new yarns from continuous filament nylon. This opens up an enormous potential for fabrics of texturized yarns.

Directions for the Future

An indication of future directions for nylon is the development recently announced by Liberty Fabrics and Chemstrand. This is known as "Libform" and it represents the first specially engineered nylon which can be permanently molded for specific end uses. Its first application is in women's bras and its obvious advantages are the elimination of all seams, the achievement of permanent size and shape, and the ability to be machine washed and dried without loss of shape.

Also recently developed by Chemstrand is a new R-Factor nylon with great resistance to degradation by sunlight and fluorescent light. This in itself makes possible the use of nylon in many product areas which were hitherto closed to it because of this problem. Chemstrand is also known to be working on a new deep-dye process for its Cumuloft carpet yarns as well as on a process for using resist yarns in dyeing. The range and diversity of nylon's uses today is well illustrated by Chemstrand's report that it now produces different types of nylon used in over 2000 different types of products.

Role of the Finisher

Through all these new developments the role of the finisher has become a critical factor in achieving the desired end result. The new nylons lend themselves to so many varied forms that it can literally be said the success of a particular nylon fabric is determined at the level of finishing. In the area of color alone the finisher now has wide latitude in creating fashion colors that are rich, deep and fast. It is the finisher who gives the fabric the right fashion texture and its overall aesthetic value. And it is the finisher — as well as the converter — who, taking the new nylon fibers offered him by creative chemistry, can and does achieve a new fashion image for what was until only a few years ago a functional, utilitarian fiber.

The fashion future for nylon is wide open. Through further modifications of the fiber's cross section, through modifications of the polymer still to be developed, through extensions of the texturizing principle and through creative use of the finishing processes, the role of nylon will continue to expand. As the first of the true man-mades it has at times been overshadowed by the versatility and shownmanship of the later arrivals on the man-made fiber scene. But it now has its second wind and on its 21st birthday it shows every prospect of leading a full and fruitful life in the world of fashion.



DuPont's trilobal "Antron" nylon gives depth and luxurious texture as well as performance to upholstery fabrics by Stead & Miller.



Nylon tricot satinette was developed by DuPont especially for sleepwear. Gown by Van Raalte.



Antron nylon gives built-in luster and bulk to this completely washable sweater by Puritan.



Helanca stretch swim sheath by Mary Jane is made with texturized Chemstrand nylon.



Revealing a textile craftsmanship which has been handed down through many generations of Peruvian weavers is this cloth doll or "Muneca." It was found near a mummy bundle in the ancient grave vaults of Peru. It belongs to the Chancay culture of about 1300 to 1400 A.D.

FASHION FABRICS FROM THE

ALTIPLANO

Fourteen thousand feet above sea level, on the high plateau of the Peruvian Andes, a 2000-year-old textile tradition is being revived to produce handicraft fabrics and fashions for the American market. Here — on the Altiplano — live the Quechua Indians, descendents of the Ancient Incas who brought the art of weaving to a peak of perfection which has never been surpassed in the world's long textile history. This modern revival was inspired and directed by a group of young and enterprising Americans whose dedication has won increasing success for the business known as Pinata Party.

Another funeral piece from the Chancay period. It was found in an ancient work basket.



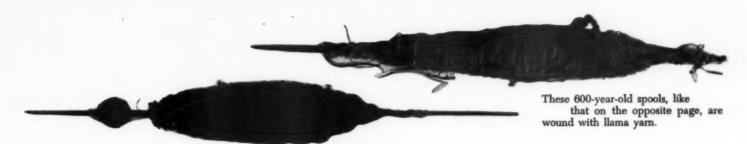
When the Museum of Primitive Art opened its exhibit on the "Art of Ancient Peru" in 1958, René d'Harnoncourt wrote:

"The artistic genius of Peru found perhaps its finest expression in the textile arts. There is no basic technique of weaving known today that was not practiced in ancient Peru, and even in modern times many of the technical feats of the Peruvian weaver have never been duplicated. But more important to us than the virtuosity of the ancient unknown craftsman is the honesty and directness of design which results from his close affinity to his medium."

Among the descendents of this renowned textile culture are the Quechua Indians who inhabit the Andean Altiplano in Peru — a long 14,000-foot-high plateau which stretches from Cuzco into Bolivia. They are a desperately poor but self-

sufficient people who eke out a primitive existence in their mountain huts, living on what they can grow and protecting their bodies with fabrics woven from the wool of the hardy Peruvian llama.

The weaving tradition which they have inherited is over 2000 years old and they still practice the ancient art as it has been handed down from generation to generation through the centuries. The wool of the llama is spun by hand and the yarns are laboriously woven on the primitive backstrap loom. It takes them more than a day to weave a yard of cloth about 14" wide. But time — in our modern sense — has no meaning for the Quechua Indians and the fabrics they create for their own use have a beauty and a richness which clothes each simple peasant in robes of an ancient royal Inca.



Into this remote fastness came two young Americans, Stanley Selengut and his wife Lee, driving down the Pan-American Highway from New York on a belated honeymoon. They became fascinated by the ancient culture they saw around them and as they traveled they grew convinced that others would respond as they did to the textiles and the artifacts they found in the ancient market places of Peru.

They infected a friend, George Grossblatt, with their enthusiasm and together they opened the Pinata Party store in New York's Greenwich Village in 1957, importing and selling the handicraft products of the Peruvian Indians to a sophisticated American audience. The name *Pinata Party* they took from the Mexican word which means a basket or container filled with good things for the fiesta.



This ball of yarn came from the same work basket. Carved wooden spindles were weighted with clay.

It was far from a simple business venture. Being young, creative, and full of energy, the owners of Pinata Party were not satisfied to run just another Greenwich Village gift shop. Their first success was with the knitted Peruvian ski caps and face masks but they soon began to bring in llama rugs, slippers, sweaters, ponchos and a fabulous collection of ancient artifacts and fabrics which the Quechua Indians dug up from the grave vaults of this pre-Columbian culture. Today, the Pinata Party shop is a fascinating combination of museum and retail store. Expanding as the audience grew, they added a second shop on upper Park Avenue and began a successful wholesale business which now has over 11,000 accounts in all parts of the country. In addition to this trade with consumers and retailers they are now known to museums and collectors as an important resource for ancient Peruvian textiles and artifacts.

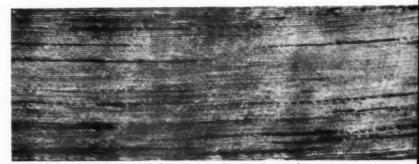
To supply this growing demand, Pinata Party now employs some 1800 Quechua Indians who spin, weave and knit the fabrics and garments which are indigenous to their culture. And this is not done by remote control. Either Stanley Selengut or George Grossblatt spend several months each year living and working with the Indians in Peru, encouraging them to adapt their handicrafts to a sophisticated American audience without sacrificing the special quality which gives them their charm and uniqueness.

Up to this point Pinata Party has been quite happy to let the Quechuas work by the slow primitive methods they have used for centuries but a suggestion by the architectdesigner Alexander Girard fired Stan Selengut with a new ambition. He decided to teach them the use of the modern handloom and persuade them to produce their traditional fabrics by the running yard in wide widths adaptable to modern garment sewing and home furnishings.

To one less young and less enthusiastic than Selengut the task would have seemed formidable, if not impossible. When the idea hit him, neither Stan nor his wife knew anything about weaving. Nothing daunted, they bought five Canadian LeClerc handlooms, shipped them to Lima and for the next four weeks they spent all their waking hours learning the

weaving craft from skilled professional teachers. When they felt proficient enough they flew to Lima, took the looms into the mountains by truck, assembled them in one of the villages on the Altiplano and faced the Quechuas.

As Stan tells the story, it was a tense moment. It was like introducing the automobile to a people who had known only the ox cart. They stood around the loom in a frightened circle and would not approach it. Then one by one, as Stan demonstrated the working of the loom, they became curious, fascinated, and finally gained enough confidence to try it by themselves. For Stan it was a humbling experience. He had come to teach them but instead they taught him. In his four weeks of concentrated study there was nothing he had learned that they did not know instinctively. Almost immediately, they understood how the loom operated and how they could enhance the plain weave with complicated pattern and tapestry work. "They didn't need me to teach them" says Stan. "They are natural weavers. I think they must be born with the knowledge."



A piece of undyed llama wool fabric woven by Quechua Indians on a modern hand loom. Such fabrics are now being produced in wide widths for the American market and imported by Pinata Party.

And so a textile industry was launched in the mountain villages on the Altiplano.

Now that the adjustment period is over, Pinata Party is beginning to import llama wool fabrics in 50-inch widths for the fashion and home furnishings markets. All spinning is still done by hand in the villages or on the mountainsides while the Quechuas tend their herds of llama. And everybody spins, from the little children to the ancient grandmothers, because it now takes twelve spinners to produce enough yarn for the demands of one modern handloom.

Since the color of the yarns determines the overall pattern of the woven fabric, Pinata Party has worked out a simple

(please turn)



A Quechua woman from the Peruvian Altiplano, weaves a superb cloth on the ancient backstrap loom.











Modern face masks and ski caps are knitted for Pinata Party by the Quechua Indians. They proved to be the most popular items in the Pinata line and were the reason for the company's original success. The pattern work follows the traditional design motifs which have been handed down through the centuries from the pre-Inca culture of Peru.

Fabrics from the Altiplano continued

method for controlling the design of the cloth. The llama wool is never dyed but in its natural state it may show as many as twenty different shadings, ranging from deep brown to greybrown, tan, ecru and off-white. The method used, therefore, is to sort out the raw wool by color and to distribute it to the Quechuas in pre-determined proportions of each color. In spinning, they blend the different colors according to the proportions they are given and thus produce differently patterned yarns and fabrics depending on what proportions of each color have been used.

At the present time all weaving is done in a central village but in the future Pinata hopes to lease the looms to the Quechuas so that they can operate them in their homes much like the crofters in the Scottish Hebrides and Shetland islands. Stan Selengut has a vision of raising the living standards of the Quechuas and bringing them into the mainstream of modern civilization. And this is his great concern and his disturbing conflict.

"These are fine, simple people" he says. "For centuries they have been self-sufficient, tending their little gardens, herding their flocks and living off the land. Now we've disturbed the established pattern of their lives. Spinning and weaving for us, they are now too busy to cultivate their gardens and for the first time in their history they have money with which to buy the things they need for subsistence. I feel this is a tremendous responsibility for us. It means we must give them

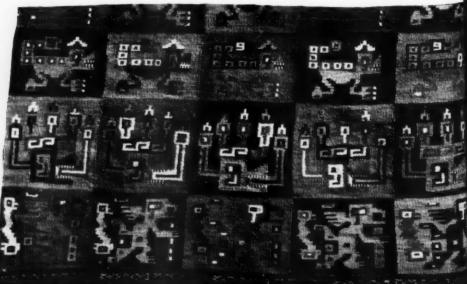
a way of life which is far better and easier than they have ever known before, a way of life which will compensate them for the changes we have brought about."

The attitude of the Quechuas themselves towards their American employers provides a fascinating sidelight on the growing interest of our machine culture in the handicraft products of primitive peoples. The Quechuas cannot understand why both Stan and George Grossblatt are continually urging them to spin their yarns roughly and to weave rough, heavy-textured fabrics. Their techniques are so highly developed, so bred-in-the-bone, that they are capable of spinning extremely fine and even yarns. And with the "magic" of the modern handloom they can now weave fabrics which are smooth, regular and near machine perfect. To them, this is a much-to-be-desired achievement yet here come the Americans asking for fabrics as rough and "primitive" as they can make them.

To the Quechuas this seems like a perverse contradiction, a deliberate rejection of the qualities they most admire. And indeed it is precisely that. But the Peruvian Indians, who have never faced the domination of the machine, cannot be expected to understand modern man's need to see the fruit of the labor of his hands — a need which finds perhaps its most obvious expression in the green gardens of every suburban home across the length and breadth of this near-automated land — C.L.



A man's shirt, possibly from the Nazca area of Peru. 1200-1400 A.D. The Museum of Primitive Art, N.Y.



Detail of a large mantle shows representative design motifs of the ancient Peruvians. 1100-1200 A.D. Museum of Primitive Art.





THE TRAVELS OF PAUL REPS

If we who are in this world such a short time have opinions about it, why not this after a few weeks in Tahiti?

The English have something the Indians lack (Integrity). The Indians have something Americans lack (Cosmosity). Americans have something everyone lacks (Instrumentation).

Scandinavians have something Italians lack (Stolidity). Italians have something the Scotch lack (Song). Chinese have something the Burmese lack (Intensity). The French have something the Japanese lack (Love).

Japanese have something the Australians lack (Gentility), Mexicans have something New Zealanders lack (Gaiety), the Fijians and Africans have something everyone, except the Chinese, lack (Supervitality).

This brings us to the Tahitans (EASE).



Like tropical Ceylon but with a milder climate, like Hawaii but still with a native population, Tahiti may be a last paradise.

A Tahitan lives in a thatched house whose roof and sides are the woven leaves of the coconut tree leaning above it. It was like this before he began to build with board sides and a hot corrugated iron roof.

He sits and looks, listens to the sharp-voiced birds. When hungry he walks over and picks up a mango, a coconut, a pineapple, a banana or goes for a very successful fishing.

His life of ease, friendliness and love sometimes slips into one of drink, indulgence and disease. He is married but probably not to the one he is living with.

The many children, the smaller ones often naked, move freely from home to home, loved but never possessed. Ownership is unnecessary.

The crunch of countless head-size, fist-size, pebble-size black stones roaring louder than the waves as they grind themselves into black sand.

Dogs do not bark at you as in Japan where they snarl, guarding their owner's possessions and mistaken for children by the Japanese women. A restaurant across from the bank in Papeete feeds dogs and cats as well as humans.

We go around (a world) to see a face. Each Tahitan face is friendly. Down a crowded street in Rangoon I once passed a ragged man with such a sunlit smile he still sticks in my eyes. In Burma too the women are free.

Along the Ganges, a yellow-robed ascetic had the face of Jesus. I first saw the Sufi, Inayat Khan, in a Los Angeles hotel far far in himself listening deliciously while a woman sang atrociously.

In Tahiti anyone likes nothing better than to stop and speak with you.

When you breathe this flowered air, drink the cascading water, eat the fruits and just sleep, you too become sweet.

The women wish to be taken (what glances!) and taken by force.

A gal passes carrying a sack so large she has to hold it over her back with both hands. Her eyes open wide beckoning — but not to carry the sack.

Older women tend to be coconut-fat. One told me she had high blood pressure but she owned a hotel. Patting her strong hard shoulders, I asked her to stand feet straight ahead and apart and swing loosely from side to side, head too. She was bird-quick to get the idea, being a natural relaxer, and blood came back into her lips, her shoulders softened and she felt much better.

A half hour later she came asking, "What was that motion you showed me?"

Yesterday, or what was said or done then, is forgotten today. Crimes are lightly punished or forgiven.

Get on a motor scooter and go slowly the 50 miles around the island over a smooth road mostly without hills. You pass hundreds of Tahitan homes with folks sitting in doorways waiting for you to come talk, eat and sleep with them.

Flowers line the roadside. There Gauguin lived between 1896 and 1905. You see his bright colors everywhere, in sky, greens, sea, colors that are ever changing.

If you will abolish shoes and clothes you too may regain your loving mood. Probably this is not for you as a tourist who must hurry, worry, scheme, plan, shop, rasp.

You are put in a costly hotel a few blocks back from the sea breeze where you swelter and sweat. Pores open, rain from within, as you begin to be a portion of a consuming nature. Rather than face the experience you quickly leave for 'home.'

"Tell me about Tahiti," someone asks. You do so, having seen it from without. Never, never look within. If you do you might lose money, wife, newspaper and be forgotten as some road-side flower.

After your return you may describe the place as one of dingy Chinese shops, bars, foreigners trying to find themselves with native women, dirty restaurants, near squalor, drunkenness.

Take your choice, paradise or degeneration. Each person's world is his own intent.

Mountains, boats and sea take on a dreamlike quality in the rain.

Does the black sand feel black to my feet? In this wind, both coconut and newspaper civilizations are blown away like flies.

A Tahiti girl prodded me from behind by mistake in the movie, then put her hand most lovingly on my shoulder to make amends. Touch here is always loving. But they don't approve of mouth kissing, I am told.

Passing a woman in the dark she touches my face gently. I lift an arm to brush her hand aside. Who fears? Not she!

Missionaries taught the women to cover their breasts. By the way, what day of what year is it?

Hawaiians dance with a free flow of arms and a loose pelvis. So do Tahitans, only the pelvis moves much faster. These dances no longer are sacred, with meaning. Even so, bare feet are better than high heels and bare bodies preferable to multi-storied cement prison cells called apartments in Hawaii.

At a branch in the road I meet an American in shorts, resident here 23 years. He tells me of a Frenchman's book giving a concentration for soul healing: first on blackness, then over a period of days the blackness turning to a briliant light. But this is the story of 24 hours in Tahiti. Poor Man, whose dark and light are isolate from nature!

Over the cliff, far down the green forest the stream of my urine was never clearer.

The three most beautiful women I ever have seen:

- A Yogini (female Yogin) sitting in the white dust of a Karachi, India, railroad station, firmbreasted, wasp-waist, naked except for some big beads, two Yogins straight and lithe one on either side of her, and what a queenly selfrespecting expression!
- A Japanese girl, Fukue-san, my secretary, without face-consciousness or makeup, modest with a skill of entering into another's mind and being there as if she were you.
- A Tahitan young woman, tall, thin, high cheekbones with a touch of Chinese blood, a face without a line in it and glowing as if some kind of flower, revealing an unearthly earthly beauty of nature that should be all mankind's. Dare we recognise it? Once seen, never forgotten.

Pause.

Suppose you find a Tahitan beauty and live with her. She cannot converse with you except in one way even after she learns your language.

The chasm between man and nature so easily bridged by the native is magnified by modern man because he doesn't wish to give up fire and the wheel. No one does.

May he learn to be natural again? Has this learning to do with romanticism of the South Seas or with his own nature?

People of the world are reaching for it with travel, tours, trailers, caravans, fashions, sports, play. But, wherever we happen to be, we enter our nature directly.

Tabitans are without jealousy. They need not think. Neither here do I.



SKETCH BOOK



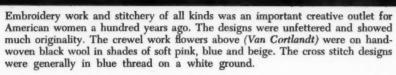
Wooden cookie molds were another popular art form. They were made large so that one cookie would last a child through the whole month of Christmas holidays from Dec. 5 to Jan. 6. This example, from the Van Cortlandt Collection, is 28" high. It shows Mr. Punch in full regalia.

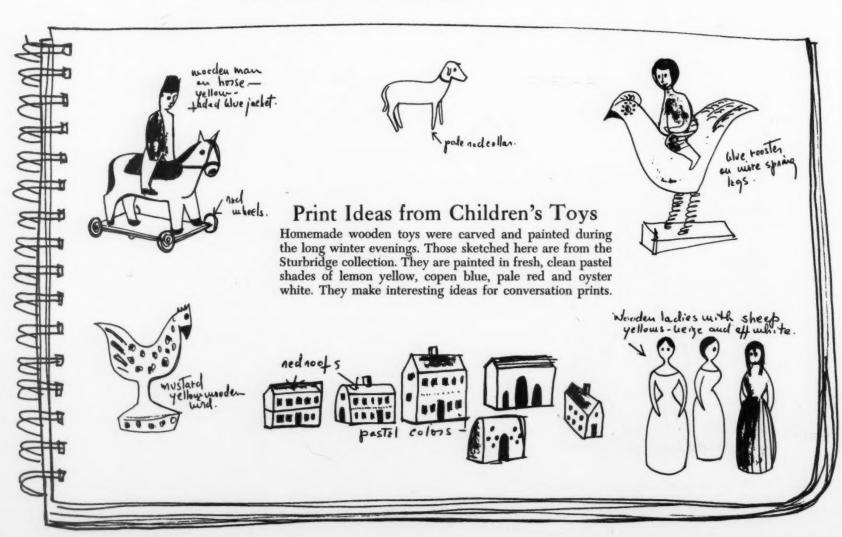


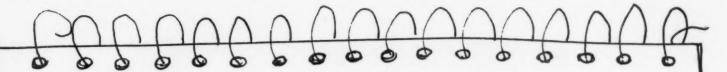
As THE AMERICANA theme expands in importance through the fabric and fashion markets, it must inevitably seek fresh sources of inspiration. There is a rich field of exploration here for designers and its chief storehouses are the excellent collections of Americana housed in our leading museums. A list of these major collections was printed in the previous issue of American Fabrics - Number 54. Inadvertently, the Shelburne Museum in Vermont - one of the richest sources of Americana - was omitted from the listing. For its comprehensive textile and fashion collection alone, Shelburne is well worth a special visit. But in each of these museums there are thousands of fresh ideas for the searching mind. To indicate the design and fashion possibilities which lie waiting in such collections we have gathered together in these pages a potpourri of ideas which reveal the rich heritage of our own culture. They represent no more than a sampling of the creative spirit which moved through our country in its early days and flowered in the work of its simple craftsmen. Today such work has a charm and an originality which matches the needs of an increasingly sophisticated American audience. The sketches on these pages were made by Winifred Milius from originals in the collections at Old Sturbridge Village in Massachusetts, The Van Cortlandt Manor Restoration in Westchester, and the Henry Ford Museum in Dearborn.

PLEASE TURN PAGE











The stencil designs on this page were sketched at Old Sturbridge Village where walls and furniture are decorated by the same simple method. A stenciler's kit consisted of: (1) round brushes in several sizes; (2) dry pigments mixed on the spot with skim milk and lime; (3) a chalk line; (4) a sharp knife to cut designs from heavy paper or cardboard. Stencils were stiffened with shellac. Stencil above shows the color repeat.



steveiled horder from a cotton table cloth. colors-noce-yellow-live-green very delicate.



Fruit and flower forms, abstracted by the needs of stencil cutting, were used in chair decoration.



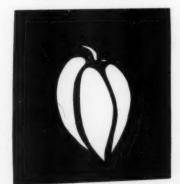
a pain of velveteen genters - steneiled in saft colors on white





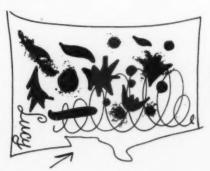
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These are from the kit of Henry Coolidge, chair painter of Orange, Mass.



Stencil Designs

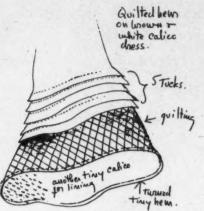
Stenciling of walls, as well as floors, furniture and fabrics, was widely practiced in most of New England from 1790 to 1840. It was an inexpensive way to achieve a decorative effect in place of the scarce wallpapers, carpets and other decorated objects. Much of this decoration was done at home but it was also a professional craft practiced by itinerant stencilers of great skill.



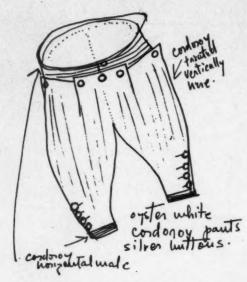
Stencil test sheet makes interesting abstract design.



Quilting was used for decora-tive effect as well as warmth. From the Sturbridge collection.

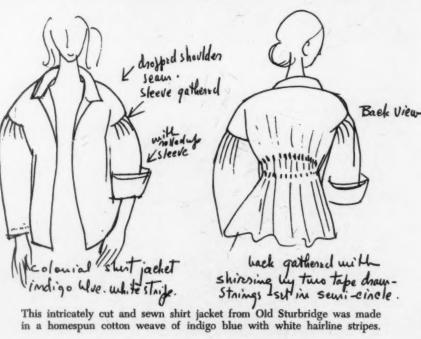


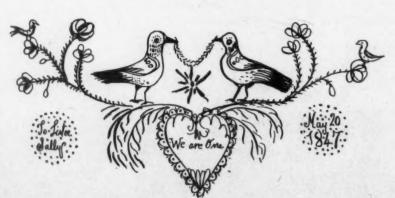
An elaborate quilted dress, also from Sturbridge, shows use of brown on white print.



This interesting pair of men's breeches (Sturbridge) in corduroy, suggests an idea for women's at home pants.

Americana Ideas continued





Shaker spirit drawings are a fascinating source of print ideas. The motif sketched above was derived from a drawing by Sally Lomise, a Shaker sister. It was reproduced by the Shaker Village Work Group, Pittsfield.







Typographical decorations, used on Old Sturbridge handbills, make interesting textured designs for printed fabrics.



In the important and rapidly expanding field of deep pile fabrics, the name Borg stands as a pioneer and a continuing standard of high quality for the whole industry. The story of its origin and its successful development of new end uses for knitted pile fabrics, is told on the following pages.

AN AF MARKETING REPORT

and the name Borgana leads all the rest in prestige

BORG *** Borgana is the "Thunderbird" of the Borg line of deep pile fabrics. This unique brand identity has carried over into a wide range of other fabrics for apparel, for the home, for children's toys and for many industrial uses.

THE WIDE ACCEPTANCE and spectacular success of "manmade furs" makes it hard to realize that these luxurious deep pile knitted fabrics first appeared on the fashion scene only eight years ago. It was in August, 1953 that the first retail Borgana ad ran in Chicago over the signature of Chas. A. Stevens & Co. All the more remarkable, therefore, is the fact that in so short a time—and in an industry where brand identity is rare—the name of one deep pile fabric, Borgana, should have made so deep an impression.

The Stevens ad accurately reflected the product it advertised. The copy said, in part: "You have never seen a cloth like this. At first you may think it is fine fur like sheared beaver, but it isn't. It's sheared all right — shimmering, flowing, flexible, densely piled — but so marvelously soft, so light, it seems to float over your shoulders."

It was creative promotion of this kind which helped build consumer excitement for the new fabric, Borgana. But it was the quality of the product itself which sustained that excitement and gave the cloth its unique brand identity.

The important word here is "quality." When George W. Borg entered the textile business he brought with him the attitudes and the engineering know-how of the automobile industry where a product *had* to be good, or it died. Research, development and exhaustive testing were the three pillars on which he had built the phenomenal success of the Borg clutch and this was his approach to textiles.

Few fabrics have been as carefully developed and as thoroughly tested as Borgana and the result was a product which backed up the superlatives used in its promotion. This quality approach has never been diluted, and today — when the field which Borg pioneered has been vastly expanded — the word "Borgana" still ranks with the consumer as the leading brand name in knitted deep pile fabrics.

The reputation of Borgana is so strong that it sometimes tends to obscure the many other types of deep pile fabrics which Borg also makes. In this field Borg is a specialist. The company makes only deep pile fabrics and nothing else. Each of its fabrics is specifically designed and engineered to meet the needs of a particular function or a particular industry. A constant program of research and development is maintained at the Delavan, Wisconsin plant and out of this experimentation come a constantly expanding range of textiles for new end uses.

In addition to Borgana, Borg now produces the following knitted deep pile fabrics:

LINER FABRIC: Quality liner cloths for men's, women's and children's outerwear, including jackets, coats, snowsuits, ski wear, boots, shoes, slippers, gloves, gun cases, etc.

COLLAR & CUFF FABRIC: Dense pile fabrics used as trim on outerwear, coats, gloves, shoes, sweaters, slippers, boots, caps, hats and other items of apparel.

COAT FABRICS: A range of coating fabrics, in addition to Borgana, for the women's, men's and children's field.

PAINT ROLLER FABRIC: Borg pioneered this special fabric for paint rollers and produces it in a variety of fibers and blends for both interior and exterior painting.

WASH MITT FABRIC: For both consumer and industrial uses. Ruc Fabrics: Deep piles in both cut and area rugs in a variety of colors, weights and blends.

Polishing Discs: For automotive use.

WAX APPLICATORS: For consumer and commercial use.

Toy Fabric: For children's soft play toys and toy animals.

This broad and varied program is the most comprehensive in the field of deep pile knitted fabrics and it has never deviated from the principles of quality production laid down by George Borg. Today the Borg Fabric Division is part of the Amphenol-Borg Electronics Corporation and the fundamental approach to research, development and testing is scrupulously maintained by men who—like George Borg—are engineers, dedicated to the tradition he established.

The story of how "Mr. Clutch" got into the textile business



THE LATE GEORGE W. BORG, WHOSE PIGNEER WORK IN AUTOS BROUGHT HIM TITLE, "MR. CLUTCH."

IF IT HAD not been for the late George Borg and the research program which resulted in Borgana, it is doubtful whether "man-made furs" would have achieved the enviable position they now occupy in the world of fashion.

The career of George Borg was almost a prototype of the American success story. The son of a Swedish immigrant, he became a millionaire through the development of the Borg automotive cluch which he helped to invent. When the clutch business merged into the huge Borg-Warner Corp., he became its chairman.

By 1940, at the age of 53, he had retired from Borg-Warner, ostensibly to settle down on his 2800-acre dairy farm in Delavan, Wisconsin. But his restless spirit continued to move out in many directions. He established the George W. Borg Corp. and again entered the manufacturing field, producing automobile clocks and a wide range of electric and mechanical equipment for industry.

And then, half reluctantly, he acquired the old Bradley Knitting Mills near his home in Delavan. It was running downhill rapidly and George Borg's main idea was to move part of his manufacturing business into the mill space. After a few years he was almost ready to liquidate the knitting

operation, when he became intrigued by the possibilities inherent in the fleece knitting equipment. He began to experiment with man-made fibers and — still thinking in terms of the automobile industry — he eventually produced a round, knitted, deep pile pad for polishing automobiles. It was a success

From there he moved into the development of a Dynel fabric for paint rollers, chiefly to accommodate a neighbor, whose lamb's wool roller fabric had a tendency to mat when used with the new latex paints. It was also a great success and the knitting business began to look interesting. The next major step forward was the development of a nylon "Wolverine" long-haired fabric for army parkas during the Korean war and this, in turn, led to the wide range of fashion and industrial deep pile fabrics produced by Borg today as a division of Amphenol Borg Electronics Corporation which came into being in December 1958 as a result of the merger of Amphenol Electronics Corporation and The Geo. W. Borg Corporation.

And that, in logical sequence, is the way "Mr. Clutch" got into the textile business.



ABOVE. Air view of the Delavan, Wisconsin plant of the Borg Fabric Division. A second deep pile knitting plant is operated in Jefferson, Wisconsin.



The careful in-use testing which preceded the launching of Borgana; these four models, wearing Borgana coats, spent several weeks during the summer driving around in an air-conditioned car to give the fabric the same kind of test consumers would give it.

RIGHT. Luxurious Borgana coat by Russel Taylor.

Textile quality through engineering know-how

There are few textile products which reveal the spirit of our scientific age as dramatically as the deep pile fabrics made by Borg. Here, not only the fibers themselves, but the ingenious techniques by which they are converted into luxurious fabrics, all depend upon the creativity and technology of the scientist and the engineer, operating with the tools of modern industry. A visualization of the deep pile process and actual samples of Borg fabrics, are shown on the following pages of this report.

BORG DEEP PILE FIRSTS

1950 - Dynel paint roller fabric.

1951 – NYLON BOOT LINERS.

1951 — NYLON BOOT LINERS. 1952 — DYNEL COLLAR TRIM FABRIC.

1953 - BORGANA.

1954 - Orlon Clothing Liners.

1955 — Guard hair fabrics. 1956 — Verel lining fabrics. 1957 - 100% Darvan coat fabric.

1957 - NYLON RUG FABRIC.

1958 — RACCOON-LIKE COAT FABRIC.

1959 - Orlon/Verel Fox-like trim.

1960 - KNITTED TWEED LINER.

1961 — Creslan liner.

1961 — Orlon Sayelle shearlinglike liner fabric.







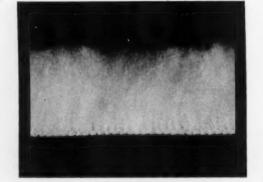
Borgana is a blend of Orlon and Darvan pile. It is used only for women's coats and is marketed through selected manufacturers.

RUG FABRICS



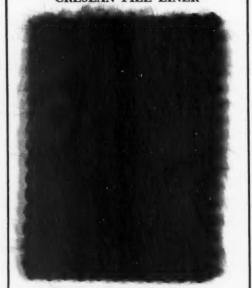
Borg's deep pile rug fabrics are made from a blend of Orlon and nylon fibers. Orlon fiber gives fine coverage; nylon gives tensile strength. The combination offers washability, little matting, minimum shrinkage.

WASH MITT FABRIC



Borg's special wash mitt fabric is a blend of acrylic and acetate pile. It is soft, resilient and has good water retention.

CRESLAN PILE LINER



This 100% Creslan pile liner fabric takes full advantage of the ability of Creslan to absorb brilliant color.





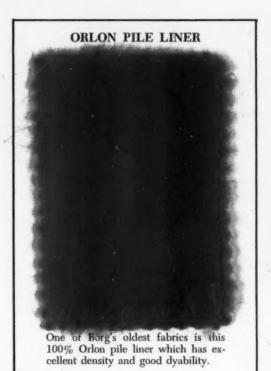


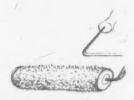




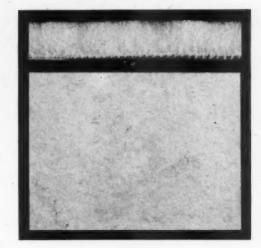


A broad and continuous program of research and development has resulted in a group of special deep pile fabrics, each designed for a specific end use.





PAINT ROLLER FABRIC

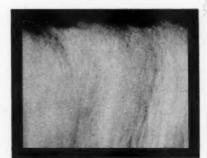


This was the fabric which solved a problem. It resists matting, holds paint well and has good dispersion. Made of 100% Dynel pile.

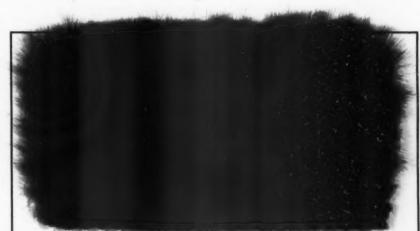


Weatherbee coat with Borg's Orlon pile liner.

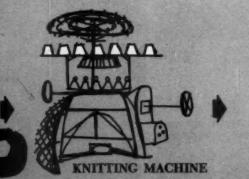
POLISHING DISC



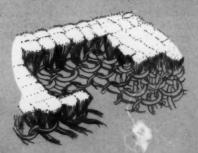
This is the deep pile knitted fabric which launched Borg in textiles. It is still made of 100% wool pile.



An extremely dense fabric of 100% Dynel pile, it is widely used as a trim on many different items of apparel from coats to boots, slippers, gloves, hats. It has excellent capacity for dyes.



PILE KNIT CONSTRUCTION



THE DEEP PILE PROCESS

Illustrations show fibers moving through the blending stages into the picker, which opens and blends them. Then from bin to card which produces the rope-like sliver of fibers. This is fed into a modified circular knitting machine which produces both pile and back at the same time by locking loosely arranged parallel fibers into the backing yarn, as shown in the final illustration. The unfinished pile fabric is then stabilized by heat treatment or coating and polished in a fur ironing machine called an electrifier, sheared to the specified height, and silicone-finished for water-repellency and hand.

Quality Control every step of the way

The quality control program at Borg is detailed and scrupulous through every stage of production. It guarantees that all Borg fabrics will live up to their earned reputation.



Knitting inspection.

Some of the many stages in the production of deep pile fabrics are illustrated on this page. They involve the following quality controls:

DYEING: Lab testing for colorfastness and for brilliance of shade. ROVING: Constant checking of fiber blend and roving weights per given specification in order to produce uniformity in knitting texture and density. KNITTING: Constant check on proper tension of the knitting stitch and a con-

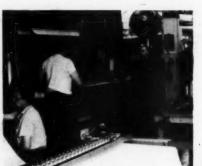
trolled fiber supply which affects density of fabric. This is followed by inspection before coating through density tests and weight per unit length. COATING: Quality control to ascertain the proper degree of coating, curing and penetration. SHEARING, SWABBING, ELECTRIFYING: Each of these processes is checked and controlled by rating procedures to guarantee proper finish. Final SHEARING: Quality control of pile height based on specification. FINAL INSPECTION: This covers density, finish, proper coating, drapability.



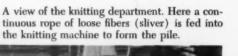
Coating department where rubberlike solution is applied to backing of some cloths for stability.



The carding department is an important step in the production of pile fabrics. Here the fibers are opened and blended to form the sliver from which the pile is made.



This department gives the pile fabrics their final shearing to insure uniformity of pile height.





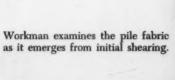
The coating mixture room where the rubber-like solution is made. It is used as a backing.



Finishing department where the face of the pile is electrified and polished to a fine luster.



Careful inspection of finished fabrics is made in this department. Women are checking the cloth for possible imperfections; any found are repaired by hand.

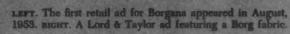








THE WOVEN Borgana label photographed above is one of the most unique fabric labels in the textile industry, because it is by this label – rather than by the name of the coat manufacturer – that most consumers identify the fashion garments they buy. Such brand identity is rare in the textile industry and it pays tribute to the total, quality-controlled marketing program which has been used to promote all Borg fabrics. On this and the following pages are shown just a few of the dealer-aid pieces and advertisements which have helped to foster the prestige of Borg as the first name in quality deep pile fabrics.





A Marketing Program geared to quality

From the first retail Borgana ad in 1953 to the comprehensive consumer campaign of 1961, Borg ads have projected quality and fashion



Borgana merchandising and dealer aid materials have always concentrated on projecting the quality reputation of the fabric. The two larger photographs shown here illustrate the type of big scale brochure with which Borg introduces its new line to the trade each season. The smaller brochures and hangtag, at the left and below, are representative of the dealer aid material which Borg distributes. Through such material and through the consumer advertising shown on the next page Borg has consistently told a fashion story and created consumer brand identity.



Borgana literature projects an image of high fashion to both the consumer and the women's manufacturing trade.



BORG ***

PLEASE TURN PAGE







Deep Pile Fashion Advertising

In both trade and consumer advertising, the Borg story is told with a rare combination of fact and fashion.





BORG FABRIC DIVISION * Amphenol-Borg Electronics Corporation * Delavan, Wisconsin

red water one or more of the following U.S. Patents: 2,600,619; 2,600,360; 2,705,000; 2,710,525; 2,797,702; 2,615,550; 2,904,009.

THE WORLD OF TEXTILES

AMERICANS TO ADDRESS MAN-MADE FIBER CONGRESS IN LONDON

Plans are now shaping up for a stimulating program which will be presented at the Second World Congress of Man-Made Fibers to be held in London on May 1-4 in 1962. Between 2000 to 3000 delegates from some 50 countries are expected to attend the congress and participate in its discussions. The program includes two major addresses, two important lectures and a series of 22 technological papers on all aspects of the manmade fiber scene.

Among the Americans who will speak before the Congress are the following:

J. Spencer Love, President and Board Chairman of Burlington Mills. His subject is: "Looking Ten Years Ahead in the Textile Industry."

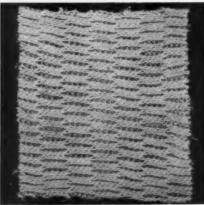
Clarence Lapedes, President of Lion Uniform Inc. of Dayton, Ohio. He will discuss the importance of man-made fibers in State and Federal apparel procurement.

William H. Grant of Sears Roebuck & Co. His paper is titled "Apparel Merchandising of Man-Made Fibers — Past, Present and Future."

Isadore Barmash, Editor of Home Furnishings Daily, will address the panel session devoted to "The Impact of Man-Made Fibers in the Home."

Royston Dunford of Courtaulds (Alabama) Inc. is Congress National Secretary for the United States.

NEW THERMAL KNIT FOR MEN'S UNDERWEAR



NEW SEARS UNDERWEAR

A new type of thermal underwear combining qualities of extreme warmth, extra durability and light weight, has been developed by Sears, Roebuck & Co. The underwear combines Acrilan acrylic fiber with cotton to provide a fabric that gives greater performance qualities than has heretofore been possible with traditional thermal wear. The fabric was first used by the United States Navy for Arctic use, and now has been developed by Sears for consumer wear.

The use of Acrilan results in an underwear that provides a highly efficient degree of insulation with unusual comfort and wearability. With Acrilan, the underwear has greater fabric stability, extra warmth, longer life and is machine washable. It will not shrink out of fit, is runproof and can be tumble dried. The fabric is a Raschel knit.

STEVENS AND ENJAY TO PRODUCE POLYPROPYLENE

Enjay Chemical Company, A Division of Humble Oil & Refining Company and J. P. Stevens & Co., Inc., have joined forces to purchase The National Plastic Products Company. For this purpose, Enjay and Stevens have formed a new jointly-owned company, which will continue the National Plastic name and its present management.

Enjay and Stevens have been engaged for more than a year in a joint research project to develop the manufacture and utilization of textile fibers from polypropylene plastic. A jointly-owned pilot plant is in operation at Stevens' Garfield, N. J. research laboratory.

The companies believe that a combination of Stevens' extensive knowledge in conversion of synthetic fibers to textiles, Humble's skills in synthetic polymer chemistry and manufacture, together with National Plastic's operating and mechanical experience in fiber manufacture will utilize complementary abilities to accelerate commercial development of polypropylene and other new fibers.

Enjay entered the plastic field last year with the introduction of Escon polypropylene which is produced at Humble's Baytown, Texas, Polyolefin Plant. The Humble Company has become a major producer of petrochemical products which are sold through Enjay. The National Plastic Products Company's manufacturing facilities at Odenton, Md., will be used by the joint company as the nucleus for development of the polypropylene fiber operation.

National Plastic is now in commercial production of polypropylene monofilaments, and this operation will be further expanded to include multifilaments, staple, and textile fibers. Stevens and Enjay believe that polypropylene, with its outstanding strength, resilience, high covering power, and low cost, will be an important synthetic fiber of the future.

UNION CARBIDE PRODUCING MODACRYLIC

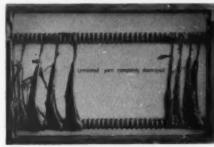
The Textile Fibers Division of Union Carbide has begun commercial production of its new multifilament modacrylic yarn. Known during its experimental stages as Fiber T, the new fiber will be marketed under the name "Aeress." This is Union Carbide's first development in the field of filament yarns. Aeress is high in acrylonitrile and offers high resistance to heat.

IMPROVED TEFLON FIBER

DuPont has developed an improved "Teflon" TFE-fluorocarbon fiber, specifically designed for braided packing in pumps and valves. The outstanding properties of the new packing material include resistance to flow, self-lubrication, chemical inertness, and a wide operating temperature range. The decreased sensitivity to the effects of operational and frictional heat results in greatly improved service lift, particularly in high-speed rotary pumps.

The National Cotton Council estimates that for 1961 the women's apparel industry consumed about 1,200,000,000 bales of cotton.

CIBA HAS NEW ROT-PROOF FINISH FOR CELLULOSICS



PROOF AGAINST ROT

Cotton, viscose rayon and other natural cellulosic fabrics used in outdoor apparel, home furnishings, marine accessories and automotive products have an opportunity to recapture some of the market taken over in recent years by the man-made fibers. The deterioration of cotton and rayon products from natural weather conditions can now be prevented by the use of Ciba's new Arigal C rot-proof finish. Developed after years of intensive research the new chemical agent eliminates deterioration in fabrics exposed to contact with the earth under moisture conditions and other extremes of the elements such as humidity, rain, wind and sun.

In a dramatic test of the product conducted by Ciba technicians in Europe, a control group of untreated fibers and an Arigal treated group were placed in a wooden frame and submerged in river bed soil for a 24 month period. When the technicians removed the rack, those fibers which were given the Arigal C rot-proofing treatment were intact while the untreated fibers had disintegrated completely. The first rot-proofing finish developed for continuous processing application, the simplicity of use and elimination of an afterwash make Arigal C extremely economical. It is linked to the fabric by chemical fixation and the treated fabric retains is original hand with no stiffening or bulkiness.

In the past, major disadvantages of rot prevention finishes have been the use of dangerous chemicals and the sometimes unpleasant odor which occurs during processing. Arigal C eliminates this problem in the plant and in end products. In addition, the finish will not affect normally fast colors, nor will it cause shrinkage of the treated fabric.

Previous chemical coatings designed to prevent rotting enabled fabrics to withstand longtime exposure but the high cost, loss in physical properties and the inability of the fabrics to "breathe" made them ineffective.

In developing Arigal C, Ciba chemists have eliminated these disadvantages, providing the textile and manufacturing industries with many new markets.

In addition to cotton and rayon, Arigal C is recommended for use on other natural cellulosic fibers such as jute, ramie and hemp.

American Fabrics Has Moved

NEW ADDRESS:

24 East 38 St. . N. Y. 16

SAME TELEPHONE NUMBER: MU 3-2755

AMERICAN PABRICS 79

THE WORLD OF TEXTILES

U.S. GOVERNMENT DEVELOPS WOOL SHRINKING PROCESS

A revolutionary new process for shrink-proofing wool fabrics has been developed by the Wool and Mohair Laboratories, a research division of the United States Department of Agriculture. The new process involves the application of a permanent plastic "skin" to the wool fiber, thus enabling the finshed fabric to be machine washed "without appreciable shrinkage.

Studies of a variety of all-wool garments treated with the process, called "interfacial polymerization," revealed that these garments showed little or no shrinkage after being subjected to repeated home-style launderings. Conversely, untreated garments undergoing the same amount of laundering showed a great deal of shrinkage.

The process of joining together two certain chemicals which, like oil and water, do not mix but rather form a membrane-like skin in the layer between the two solutions, called the "interface," was regarded as nothing but a laboratory curiosity until a few years ago. Subsequent experiments led to the discovery that a permanent polymer skin could be formed on each wool fiber by passing a woolen fabric through two separate solutions.

ALL-WOOL SWEATER CAN BE MACHINE WASHED



PURITAN'S "AQUAKNIT" SWEATER

Puritan Sportswear Corp. is introducing for Fall a group of five pure lamb's wool sweaters which can confidently be washed in an automatic washing machine and tumble-dried with no fear of shrinking.

A marriage of two ingredients is responsible for this forward step in easy care performance for pure wool—special knit construction together with a chemical treatment applied to the knit fabric at the mill level.

The chemical treatment is called Dylanize, a trademark owned by Stevensons, U.S.A. Already successful in all-wool blankets, this process is applied now for the first time to specially constructed all-wool sweaters. This newly constructed knit fabric plus the chemical treatment eliminate wool's tendency to felt with agitation in water. The need for blocking and lengthy drying is therefore eliminated.

The exclusive rights to the Dylanize name for men's sweaters have been granted to the Puritan company for the 1961 Fall season. They will be marketed as the "Aquaknit" group.

RECORD WORLD WOOL **CONSUMPTION FOR 1961**

Reviving demand in most countries is expected to boost world wool consumption to a record high of 3,251 million pounds for the current calendar year, according to the Wool Bureau's evaluation of world supply and demand. Increasing consumer demand for wool products will result in the third successive annual rise in world wool consumption since the world wool recession of 1958.

This estimate reported by the Components of the c This estimate, reported by the Commonwealth Economic Committee, based on 6-month consumption data of ten countries and a study of related trends in other countries, places the gain in world wool usage over 1960 at a conservative 1.1%. While exports to the Soviet-Sino bloc from the Southern Hemisphere have declined, in other countries for which consumption data are not available, rising imports and increased processing of wool suggest an offsetting gain, the wool Bureau believes.

EXPANSION IN NON-WOVENS

American Felt Company now offers an ex-tensive range of non-woven materials in such fibers as Polypropylene, Teflon, Dacron, Dy-nel, Rayon, Orlon and nylon. This wide group of fabrics is marketed under the name "Feutron." The line ranges from high density air, liquid and shaker bag filter fabrics to press pads for the laundry and drycleaning trades, cushion pads for footwear, high tempperature and weather resistant seals, weatherstripping, linings and conveyor belts. The Feutron 63 line also includes hand washable, drip-dry drapery fabric constructed of Dacron and rayon. The unique non-raveling, dimensionally stable and washable properties of this material have made possible the introduction of perforated patterns for draperies, room dividers and screens. They have been widely adopted by interior designers and architects.

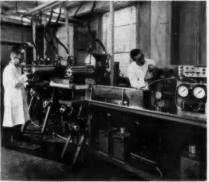
ECONOMIC OUTLOOK FOR TEXTILES

"Like the rest of the economy, the textile industry was bard bit by the recession. But now, industry leaders report that production has begun to turn up in most areas of the business. Unfilled order totals are mounting, Unflited order totals are mounting, and prices show signs of firming. According to many industry executives, overall 1961 results still will probably lag behind those of 1960, but the final quarter profits should show a steep climb. This momentum is expected to last at least well into 1962, with results matching and even surpassing the relatively prosperous totals of 1959 and 1960.

"Over the longer term, the outlook is even more optimistic De-mand, which had been disappointing mand, which had been disappointing in recent years, is due for a spurt thanks to the 20% population increase projected for the Sixties. Even more significantly the big gain in those years will be in the 15-29 age bracketet, or among those most clothes, and textile, conscious. At the same timetextile, conscious. At the same time, constant attrition bas continued to whittle away at the industry's over-capacity problem, and industry lead-ers now feel that the disastrous facili-ties' surplus is under control."

QUOTED FROM "INVESTORNEWS" FRANCIS I. DUPONT & CO.

NEW TOOLS FOR SPINNING



FOR MAN-MADE FIBERS

Unique tools for the study of new polymers have been added to the expanding textile laboratories at Southern Research Institute. Facilities for wet, dry, and melt spinning of synthetic fibers, capable of producing monofilament or multifilament yarns, have been installed to permit evaluation of the fiberforming characteristics of new polymers or modified forms of existing polymers.

The equipment is adapted for spinning such and polyvinyl alcohol. Polymer batches as small as 25 grams may be spun. It may be used for special problems, for example, to study the effects of additions of other columns as provided as a small as 25 grams may be spun. It may be used for special problems, for example, to study the effects of additions of other columns to polymers to provide decrease. polymers to polypropylene to provide dyeability. Another use would be to study new finishes, antistatic agents or germicides added to the polymer before fiber formation.

STABILIZED NYLON TRICOT

A new method of manufacturing nylon tricot, designed to decrease the fabric's stretch and make it more suitable for use in men's pajamas, has been developed by the Bangor Division of Collins & Aikman. This development is the first in a series of products from Bangor for the men's wear field. Working with yarn from American Enka, and in cooperation with Weldon Pajamas, the Bangor Division has produced a "stabilized" nylon tricot that has a firmer, less stretchable quality than is usual with this fabric. However, the tricot retains the intrinsic qualities of nylon tricot which by construction is a true wash and wear fabric.



TRUE WASH & WEAR

STRETCH FABRICS FOR AUTO SEAT COVERS



TIGHT FI

Stretch fabrics, one of the biggest developments in the fashion field, are now also being used for automotive seat covers. First use of the textured nylon fabrics for automobiles has been in foreign cars, although covers for American compacts and standard sizes are currently available.

Designed by Madison Auto Company, the new covers provide smooth, easily-adjusted, covers which are soil and stain resistant to a large degree. They are easily removed for laundering.

The covers were developed by Norbert Guillaume and are being made of cloth produced by Stretch Fabrics Inc., of textured Chemstrand nylon. Their obvious advantage is that the natural tension of the fabric gives them excellent fit without expensive cusom tailoring. The fabric has been treated with a special finish so that it is water repellent and highly resistant to stain.

DISPOSABLE FABRICS OF NON-WOVEN KAYCEL

The Du Pont magazine reports that some hospitals are saving money by using disposable drapes and towels in surgery and obstetrics to cut down on laundering expenses and minimize the possibility of contamination.

This is but one of a string of uses for "Kaycel" material, a nonwoven fabric marketed by Kimberly-Stevens Corp., New York City, a jointly owned subsidiary of Kimberly-Clark Corp., Neenah, Wis. (paper), and J. P. Stevens & Co., New York City (textiles). Appropriately, it combines some of the good qualities of both types of product.

Its heart is a very open netting or "scrim" of Du Pont nylon, which is bonded between two layers of cellulose wadding (Dacron may also be used in the web.) The resulting fabric is soft, with seersucker-like dimples. Since it's possible to turn out nearly 200 yards of "Kaycel" a minute, quantity production is obviously economical. Because of its nylon web, the material resists tearing and hence can be used where strength equivalent to woven fabrics generally is required. "Kaycel" can be easily dyed or printed, made fire retardent and water repellent. It can be cut and sewn by standard textile methods. Prices range from 8 to 17 cents a yard.

Among the most popular items made with "Kaycell" are coats, aprons and suits for industrial workers. Wearers include chemists, painters and men who work with radio-active materials.

ART STUDENTS LEAGUE EXPANDS TEXTILE DESIGN COURSE

This past year has seen the inaguration of a course in Textile Design at the Art Students League of New York. As a result of the overwhelming success and acceptance of the class, the League has decided to expand its facilities to include a two year course in Textile Design.

The course of study, designed to appeal to the high school graduate, would be an accelerated one, five days a week from 9 AM to 4:30 PM. It has been planned with an intimate knowledge of the industry's needs for creative, exciting yet practical designs.

Students will be trained to step into positions such as: Colorists, Designers, Repeat Artists, Documentary Research Artists or Assistant Stylists in both the apparel and home furnishing fields. Design competitions and scholarship assistance will be available from various members of the Textile industry. The course is directed by Kay Lewis.

TEXTILE MILL PROFITS UP

Profits of textile mills for the second quarter of this year jumped to \$60 million after taxes. This compares with \$36 million in the first quarter, though it was still below the \$86 million figure for the second quarter of last year. Sales for the period were recorded at \$3,307,000,000.

REVISED & UPDATED EDITION OF "APPLIED TEXTILES"

Dr. George Linton, Textile Editor of AF, has just brought out a sixth edition of his popular text book, Applied Textiles. It is published by Duell, Sloan & Pearce at \$11. Revised and updated to cover the latest developments in man-made fibers and chemical finishes, the new volume will prove a valuable aid to students and teachers working in the field of fashions and fabrics. Particularly important for the student is the extensive bibliography and the comprehensive self-study and self-testing program which appears at the end of each section in the book. All phases of textile production are covered. Dr. Linton is well known both here and in Europe as a leading educator in his chosen field. For the past fifteen years he has been Dean of the Textile Department at the N. Y. Fashion Institute.



NEW AND UPDATED

DO-IT-YOURSELF DRYCLEANING



COIN-OPERATED DRYCLEANING

The do-it-yourself drycleaning store has arrived on the American scene through the recent introduction of the Westinghouse coin-operated drycleaning machine.

The machine operates as follows: A cleaning solvent, perchlorethylene, charged with a drycleaning detergent, is pumped from a storage tank into the washing cylinder. As the clothes tumble through the solvent, the liquid is continually recirculated through an activated charcoal filter. The filter removes soil, fatty acids and colored matter from the solvent, which is then returned to the cylinder. After cleaning is finished, the clothes are spun and dried by moving heated air through them. The hot air passes through a water-cooled condenser where excess solvent is removed from clothes and is condensed and drained to the storage tank. To deodorize, fresh air is circulated through the clothes and, finally, the machine shuts off automatically.

JAMAICA (WI) TO BID FOR WORLD TEXTILE MARKET

Jamaica plans to bid for a portion of the world market in textiles by manufacturing high quality blankets of wool and man-made fibers and by introducing suitings, skirtings, flannels and furnishing fabrics. The blankets are presently manufactured on the island by Jamaica Woolens Ltd., who plan to introduce additional lines in the near future.

Jamaica Woolens Ltd., is a subsidiary of the George Pattinson Company of Ontario, and operates an 89,100-square-foot plant for which ground was broken in Jamaica in May, 1959. The company's building houses complete weaving, dyeing and finishing operations. The firm operates under the island's Export Industry Encouragement Law which permits up to seven years freedom from income taxes, plus duty free import of raw materials, machinery and equipment.

NEW TYPE OF FABRIC DEVELOPED BY DUPONT

A series of experimental products to be known as "spunbonded" materials has been developed by DuPont. They are produced "through integration with synthetic fiber manufacturing." Though some of the new materials appear similar to conventional non-woven fabrics, DuPont says an entirely new technology is involved, yielding unique properties.

THE WORLD OF TEXTILES

NEW FIBER IDENTIFICATION METHOD ANALYZES MOLECULES

Goodyear scientists have developed a new rapid and accurate method for identifying rubber and textile compounds. The new identification procedure — which takes 20 minutes where other methods take hours or even days — combines the talents of a space-age oven and a \$100,000 analytical instrument which identifies the nature of molecules by sorting them out according to their highly individualistic molecular weights.

A sample not much larger than a pin-head is all that is required for identification purposes. Loaded into a vacuum tube, the sample is volatized in an arc image furnace, or oven, which is capable of obtaining temperatures of 6000 degrees F. in two seconds. The sample is then analyzed in its gaseous state in a mass spectrometer. This sophisticated research tool clicks out a molecular "fingerprint," which can then be matched by IBM sorters against charts of all known rubber and textile molecules.

NEW SILK SCREEN ADHESIVE

A new silk-screen flocking adhesive which will not clog screens and eliminates costly down-time has been developed by Adhesive Products Corporation, N.Y. Designated Floktex, the adhesive is excellent for adhering glitter, beads, flock and decorative materials to fabric, paper, plastics, and other surfaces. Floktex is easy to apply, remains permanently flexible and will not discolor materials. The adhesive is unique in that it can also be applied by printing press, making possible high speed flocking operations.

BANCROFT'S MACINTYRE DIRECTOR OF INDIAN HEAD



W. R. MACINTYRE

W. R. MacIntyre, president of Joseph Bancroft & Sons Company, has been elected a director of Indian Head Mills. Indian Head is a diversified textile company with head-quarters in New York City. It recently completed the purchase of Bancroft for approximately \$17 million. Bancroft, head-quartered in Wilmington, Del. conducts textile research and development in connection with extensive marketing programs for patented textile finishing processes and does bleaching, dyeing, printing and finishing.

The first rayon weaving mill in East Africa will be built at Mombassa by the Kenya Rayon Mills Ltd. Technical assistance and capital for the \$3 million venture comes from Mitsubishi of Japan.

CELANESE DESIGN COMPETITION FOSTERS YOUNG TALENT



CELANESE WINNER

The Celanese Interior Design Competition for Young Professionals has made seven awards totaling \$9000 to winners from all parts of the U.S. Interiors, designed by the winners and built and furnished by Celanese Fibers Company, were displayed at the National Design Center in New York.

The successful entrants came from seven representative geographical regions. Winner of the National Award of \$3,000 was Carl Taylor of New York City with his design for a "Multi-purpose room for a young professional" (see photograph).

In presenting the awards, Louis Laun, V.P. and Director of Marketing for Celanese Fibers Company, said: "Nothing could be more rewarding for Celanese than to know that this competition has caused this explosion of creativity, for we believe that to stimulate ideas is a particular function of industry today. Of course, when we sponsor a project of this kind, we have also before us the objective of stimulating sales of the home furnishings fabrics in which our fibers appear. This is part of our policy—the support we give to mills, converters and stores. But we do believe that when we find people with ideas, and help them in some small way, the benefits will also ultimately be shared by the industry of which we are a part, and the consumer whom we serve."

ISRAEL CLAIMS WORLD'S HIGHEST YIELD IN COTTON

The British Textile Mercury & Argus reports that Israel now claims to have the highest average yield per acre for cotton fibre in the world — 928 lbs. for the 1960-61 crop compared with a next best by El Salvador of 698 lbs, and Guatemala's 590 lbs.

United States yields for the last two years have been 462 and 449 lbs.

Hand-picking, still practiced to a large extent in Israel, as well as in El Salvador and Guatemala, is one of the reasons given for the high average. Investment per acre in Israeli cotton is also disproportionately high in comparison to other countries. This fact is mainly due to the necessity for frequent use of expensive pesticides and the high cost of local labour. Nearly 17,000 acres in Israel are now under cotton and it is hoped to expand this area to 25,000 acres soon. The crop now covers the requirements of the domestic spinning industries, and there is a surplus for export.

The two main varieties grown are the American-type "Acala" and a fine Pima cotton, similar to that cultivated in the Sudan.

MEN'S FASHIONS TO BE FEATURED AT N. Y. WORLD'S FAIR

Male fashions and accessoreis will be featured on the entire third floor of the "Fashion Pavilion — U.S.A." at the 1964-65 New York World's Fair. The Pavilion will be built and operated by the U.S. Fashion Institute, Inc. organized for this purpose.

Organizing group for male fashions is J. P. Goebel Enterprises, Inc., headed by John Paul Goebel, noted fashion designer and consultant. The Goebel firm has leased a total of 24,260 sq. ft. from the U. S. Fashion Institute, Inc. It plans to combine all segments of the male fashion field into an entertaining and informative panorama. It is planned to use 50% of the exhibit area for a fashion "theater-in-the round" which will feature two-a-day men's fashion shows, weekend spectaculars, and provide men's fashion exhibitors with a setting for introducing seasonal lines and promotional campaigns.

The remaining third floor area will be utilized as exhibit space to spotlight designs, fabrics and workmanship which have vitalized American-made male fashions.

The fashion pavilion itself, a four-story futuristic building designed by Caleb Hornbostel, A.I.A., also will feature fabrics, furs, sportswear, cosmetics and jewelry from the women's fashion field. Boutiques from America's leading department stores and a "designers row" of dream fabrics and fashions of the future are planned.

EXPANSION AT U. S. RUBBER

United States Rubber Co. announced an expansion program at its Winnsboro (S. C.) and Gastonia (N. C.) plants. The Winnsboro plant will undergo complete modernization of cotton yarn manufacturing facilities. U.S. Rubber's cotton yarns are used in rubber products requiring cotton backing, such as certain types of footwear and stretchable Naugahyde which is used in upholstery. This is the third expansion and modernization undertaken at Winnsboro during the last year, and brings the company's modernization expenditures at this location to more than \$3.5 million since the summer of 1960. The expansion at the Gastonia plant will double production facilities of Vyrene, the company's spandex thread. Further expansion of Vyrene production facilities is expected to be carried out periodically to meet the growing demand for this fiber.

10 MILLION-POUND POLYPROPYLENE CAPACITY FOR AUSTRIAN PLANT

The polypropylene plant of Danubia Petrochemie A. G. at Schwechat, near Vienna went on stream in July. The new installation, which covers 130 acres, will produce 10,000,000 pounds of polypropylene per year. The new organization was formed jointly by Montecatini of Milan, Italy, original developers of isotactic polypropylene, and Oesterreichische Stickstoffwerke A. G. of Linz, Austria's leading chemical company. The polypropylene produced will be sold in Austria under the tradename DAPLEN. An adjacent refinery will supply raw material for the process. Austria is the fifth country in the world to begin production of the new plastic.

The Irish Fabric Knitters Group will be promoted in this country by Kameny Associates, Inc. of New York. The group is planning to introduce a line of high quality double knit jersey fabrics in the Fall of 1962.

WILLIAM LORD HEADS DIVERSIFICATION AT CROMPTON-RICHMOND



WILLIAM G. LORD, II

William G. Lord, II, has been appointed Merchandise Manager of the Cotton & Synthetic Fabrics Division of Crompton-Richmond in a move to expand the company's product lines. Crompton-Richmond Company Inc. is the selling agent for Crompton Company Inc., established in 1807, with mills in Virginia, Georgia and Arkansas. It is the country's oldest and most prominent producer of corduroys, velvets and velveteens. The new move is aimed at expansion specifically in the field of polyester/cotton blends and other synthetic blends for the sportswear trade and other trades to which it is now distributing its pile fabrics. Mr. Lord has been with Burlington Industries for the past 14 years.

NEW TEXTILE PLANTS

Expansion and modernization of textile equipment is moving ahead at a more rapid pace than we have seen in the past. Among the new plants scheduled are the following:

- Springs Cotton Mills will build a \$7 million plant in Lancaster, S. C.
- Greenwood Mills is building a completely new factory in Greenwood, S. C. and is also modernizing its Ninety-Six mill.
- Beaunit Mills is building a plant for knitted fabrics at Hamilton, N. C. It will have 180,000 square feet of space.

NEW V.P. FOR WAWA



ELSIE MURPHY

Elsie Murphy, President of Old Bennington Weavers, Inc., has been elected Vice President of Woolens and Worsteds of America, Inc., an association representing all segments of the American wool textile industry.

Mrs. Murphy, with a background of some 25 years in the wool textile industry, was president of S. Stroock & Co., Inc., before joining Old Bennington. She is a member of the Philadelphia College of Textiles and Science board of trustees, a member of the New York State Women's Council and the Fashion Group, Inc., and a past winner of the National Association of Wool Manufacturers' "Golden Fleece" Award.

Goodyear and Toyo Spinning Co. of Japan have concluded a ten-year agreement under which Toyo will manufacture Goodyear's Vitel polyester resin. A 10 million pound a year plant will be built at Iwakuni, Japan.

NEW WOOL FINISH DEVELOPED IN BRITAIN

A new finish to improve the versatility of wool textiles has been developed by the 250-year-old British firm of Perrotts Limited at their Leeds mill. The new finish, Perrottell, is a completely new method of sensitising wool or worsted fabrics so that it is possible to put in creases, where desired, of exceptional durability. It gives wool much the same properties as synthetic fibers from a crease retention point of view.

Perrottell combines the advantages of durable creasing with the normal Perrotts processing and the process results in fully-shrunk, sensitised cloth with increased dimensional stability. Once the durable crease is introduced in the recommended way it will become the natural position for the wool fabric. Wear will naturally tend to reduce the sharpness of the crease but when the garment is hung up in the normal way the sharpness of the crease is regained as the live wool fabric re-asserts itself.

Normal dry cleaning will not remove this durable crease and therefore it is necessary to re-press along the same fold. Perrotts recommend a trouser label to the effect that the creases are durable and care should be taken to re-press along the same crease after dry cleaning.

THE

PENALTY OF LEADERSHIP

In every field of human endeavor, he that is first must perpetually live in the white light of publicity. Whether the leadership be vested in a man or in a manufactured product, emulation and envy are ever at work.

In art, in literature, in music, in industry, the reward and the punishment are always the same.

The reward is widespread recognition; the punishment, sierce denial and detraction.

When a man's work becomes a standard for the whole world, it also becomes a target for the shafts of the envious few. If his work be merely mediocre, he will be left severely alone—if he achieve a masterpiece, it will set a million tongues awagging.

The leader is assailed because he is

The leader is assailed because he is a leader, and the effort to equal him is merely added proof of that leader-

That which is good or great makes itself known, no matter how loud the clamor of denial. That which deserves to live — lives.

> QUOTED FROM BROCHURE OF KIMBERLY-CLARK CORP.

There are 3560 U.S. companies making textile mill products, according to the Internal Revenue Service. For 1959, gross profits of these companies was \$2,100,000,000 while net income was reported at \$512,000,000.

The U.S. Department of Commerce estimates that the U.S. textile industry will spend \$490,000,000 on new plants and equipment during 1961. For 1960, the figure was \$530,000,000. For 1959, it was \$410,000,000.

VINYL-COATED NYLON FOR AIR DOMES AND FLOATS



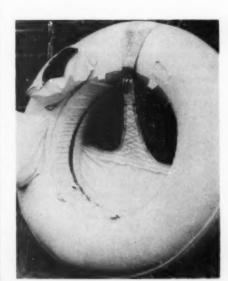
TRANSLUCENT AIR DOME

The Vulcan Division of Reeves Brothers has introduced a new line of vinyl coated fabrics developed for the fabrication of inflatable air houses. The fabric is marketed as Coverlight-V and is available trimmed in a width of 56", in weights of 12, 16, 18, and 20 oz.

These portable all-weather shelters are versatile and adaptable, serving a variety of purposes ranging from construction sheds, meeting and exhibit halls, tennis court, swimming pool and construction site enclosures to warehouses. A squirrel cage fan, driven by a small electric motor, provides the supporting air for the dome. In winter, the air is passed over bottled gas burners to heat the shelter. The fabric is translucent, thus providing ample daylight inside the shelter.

Air houses may be placed on any reasonably level terrain: grass, sand, gravel, macadam or concrete may serve as floor area. In size, domes up to 60 feet wide and 200 feet long are fully practicable.

Coverlight-V is also adaptable for high-temperature applications in aircraft construction, welding curtains, and other industrial and maintenance fields. In the consumer field it is used widely for the Paddle Pusher Floats—a popular method of lake fishing throughout the mid-west.

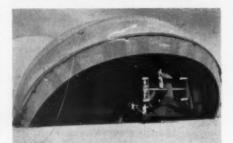


PADDLE PUSHER FLOAT

Dun & Bradstreet reports that textile mill failures for the first half of 1961 numbered 57, as against 39 in the same period of 1960. Liabilities involved were \$9,000,000, as against \$3,700,000 in 1960.

THE WORLD OF TEXTILES

A FABRIC AIRPLANE HANGAR



INFLATABLE AND RE-USABLE

A large air supported fabric airplane hangar is one of many coated fabric structures being made by the Alden Rubber Co. of Philadelphia. Half-oval in shape, like a giant watermelon segment, the 80 feet long, 70 feet wide experimental hangar stands 36 feet high at the center and consists of a coated fabric "skin" over an auxiliary semi-rigid frame. This coated fabric is a special modified neoprene applied to either a nylon or polyester base material. The compound was created through a research and development program with the U.S. Navy for specialized Arctic clothing applications and then adapted to take the roughest kind of beating in its new role.

The fabric skin works in combination with specially developed aluminum, fabric and steel cable "beams" to provide resistance to the most severe weather conditions. Either end of the shelter can be opened accordion fashion for bringing in or removing major equipment. Door operation is controlled with power or manually operated winches. The complete structure weighs less than 7,500 lbs. Packaged in reusable containers, this unique Quartermaster shelter is easily transportable by one $2\frac{1}{2}$ ton 6 x 6 truck or cargo aircraft.

A 1½ horsepower, high volume, low pressure blower inflates and stabilizes the structure. When pressurized, the lightweight frame is relieved of all wind and snow loads. With auxiliary heating, the new shelter permits maintenance operations at temperatures down to minus 65 degrees Fahrenheit. And, not only can this unusual shelter come to aircraft, but it can literally take a show on the road in a completely original way. Simplicity of design permits assembly without special tools, training or skills and makes the structure adaptable as a theater or a field bakery shelter, warehouse, or recreation center.

Burlington Industries has acquired the Globe Spinning Co. of Mt. Holly and Lincolnton to supplement yarn production at its Burlington Yarn Co.

Glen Raven Mills, Inc. has been formed as a selling organization to handle the woven and knitted fabrics of the eight Glen Raven plants. Allen Erwin Gant becomes Chairman of the Board and James P. Kinard is Chief Executive officer.

U.S. shipments of cotton exports totaled 7 million bales for the year ended June 30, 1961. This is an increase of 400,000 bales over the previous year and the second largest figure since 1934.

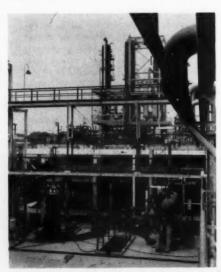
AVISUN TO MAKE POLYPROPYLENE ON A 100-MILLION POUND-PER-YEAR BASIS

The fast-growing polypropylene industry has a new — and impressively large — entrant in the field, the AviSun Corporation. Although American Viscose and Sun Oil planned AviSun's future role in polypropylene before the corporation was formed in 1959, it was only recently that the extensive research by both parent companies and AviSun culminated in the establishment of complete 100-million pound-per-year polypropylene facilities at New Castle, Delaware.

The facilities at the New Castle plant include a polymerization area where catalyst preparation and reaction are carried out, the purification area where the crystalline polypropylene is separated from the catalyst, the finishing area where the powdered polypropylene is compounded into pellets, and the solvent recovery area.

AviSun Corporation has perfected a process for making the polymer continuously, rather than in batches, which results in a more uniform material. This innovation, together with the highly favorable design engineering properties, ease of fabrication and low costs of materials inherent in AviSun's polypropylene, were coupled with creative marketing efforts. AviSun's philosophy, according to its President Hershel H. Cudd, was to "search out the wants and needs of the customer and meet these needs with... imaginative and useful products of polypropylene that would take advantage of its many unique properties."

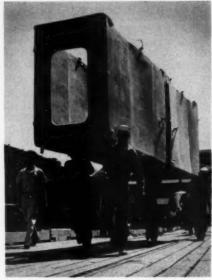
As a monofilament fiber, AviSun polypropylene is used in automobile upholstery, furniture webbing, marine rope and industrial fabrics. Olefane, Avisun's polypropylene film, has found wide acceptance in the packaging field. It has also moved into the paper products overwrap market and the soft goods field. Oleform, a modified polypropylene, combines unique performance characteristics with low production costs and is expected to open many new markets, primarily industrial.



AVISUN'S POLYPROPYLENE PLANT

The Du Pont Company (United Kingdom) Ltd. is planning to build a multimillion dollar plant for the manufacture of "Hylene" organic isocyanates, a basic raw material used in the production of both rigid and flexible urethane foams. The new plant will be located at Maydown, North Ireland.

INFLATABLE FABRIC GYM



FOR SUBMARINE EXERCISE

A nuclear powered submarine is carrying the world's first air inflatable fabric gymnasium on its latest voyage. The gym joined inflatable fabric bunks and an inflatable fabric gangplank on the USS Theodore Roosevelt, a ship which carries the deadly Polaris missile. The equipment was specially manufactured by The Goodyear Tire & Rubber Company, of Airmat, a rubberized fabric material. Five to ten pounds of air pressure per square inch is required to inflate the structure, which is built in two sections joined by steel rods after inflation.

THE TOTAL CONCEPT IN MEN'S SPORTSWEAR

McGregor-Doniger's Spring line of sports-wear for men has been planned to create a new "total" look. According to President William Doniger, "our new concept is built on the philosophy of total action, total coordination, total color, total fashion — all leading to total consumer acceptance." The question of what jacket or sweater to wear with what slacks and shirt is no longer left to chance or whimsical selection. Coordination of all components in a sports outfit has been planned in color, material and style. The action concept also includes the new McGregor-developed horizontal stretch fabrics which will be used in many articles of men's sportswear.

WHO WILL CONQUER WASH-WEAR?

"The most promising single contender for supremacy in the washwear field for the sixties will come from a host of chemical cross-linkers for cellulosic fibers either now available or in the process of development. The winner for the long haul is not known today nor will the issue be settled in the coming months. The whole crux of the matter is finding the best chemical cross-linker that achieves high fabric performance ratings with minimum adverse effects upon the fabric's wearing qualities."

FRANCIS K. BURR SENIOR RESEARCH ASSOCIATE FABRIC RESEARCH LABORATORIES

U. S. VS FOREIGN TEXTILE PRODUCTION COSTS

The U.S. Department of Commerce sponsored a study by the Survey and Research Corp. of comparative fabric production costs in the U.S., Italy, Britain, India and Japan. The comparisons are based on studies of producers believed to be representative, rather than upon statistical averages, and are therefore not to be regarded as conclusive. The cost period used was the first half of 1960. Complete text of the study is available (40 cents) from the Superintendent of Documents, Washington 25, D.C.

Cotton Fabrics

JAPAN. U.S. production costs exceed those in Japan by 25%-30% for carded sheeting and printcloth, and by 40%-50% for combed broadcloth and gingham. The specific differences are 3¢ per linear yard for the sheeting, 4¢ for the printcloth, 8¢ for the broadcloth and 11¢ for the gingham. Labor costs per unit of output in Japan are 35%-45% less than those in the U.S., which accounts for the difference in total production costs.

INDIA. U.S. production costs, as compared with those in India, are almost 30% higher for the sheeting and 10% higher for the printcloth. The specific differences are 3¢ per linear yard for the sheeting and 2¢ for the printcloth. Lower cotton costs are the principal factor in the difference. Labor costs per unit of output are also lower in India, but the difference here is offset by higher costs of all factors of production other than labor and fiber.

BRITAIN. Incomplete data indicates that U.S. production costs for the combined yarn fabrics may be lower than those in the United Kingdom. Higher output per man-hour in the U.S. apparently offsets lower wage rates in the United Kingdom.

COTTON COSTS AND WAGE RATES. U.S. producers are at a disadvantage with respect to cotton costs and wage rates. In the first case the disadvantage is not always large. Per linear yard of fabric, cotton costs in Japan are from ½¢ to 1½¢, or 8-15%, lower than in the U.S. Costs in India per linear yard of fabric are 1.7¢ to 2.8¢, or 20-33% lower. In the second case, while labor costs are distinctly higher in the U.S. than elsewhere, so is productivity. All other costs per unit of output in the U.S. are much lower than in India, slightly higher than in Japan.

Wool Fabrics

BRITAIN. U.S. production costs are roughly 10% higher than in the United Kingdom for worsted sharkskin and higher grade woolen flannel. The specific difference is 31¢ and 30¢ respectively. The margin is entirely accounted for in each case by the lower price of wool in the United Kingdom.

JAPAN. U.S. production costs for worsted sharkskin fabric are 37% higher than those in Japan. The specific difference is 98¢ per linear yard. As in the case of cotton fabrics, higher labor costs per unit of output are the principal factor in this cost difference. Output per man-hour is about 2½ times higher in the U.S. than in Japan, but wage rates are almost 5 times higher. Japan also enjoys an advantage in fiber costs and in all other costs taken together.

ITALY. Costs of producting lower grade flannel fabrics in the U.S. are 2½ times those in Italy. The specific difference is \$1.14 per linear yard. The lower cost of the raw

materials used seems to be the major factor, although it is not certain whether the fabrics compared are of the same quality.

Spun Rayon Challis

ITALY, JAPAN. U.S. production costs per linear yard of spun rayon challis appear to be 10% lower than in Italy and approximately 50% higher than in Japan.

Rayon staple fiber is less costly both in Italy and Japan than in the U.S. Lower processing costs in the U.S. more than offset the Italian advantage. In Japan, however, lower processing costs add to and exceed the raw material advantage.

CASWELL-MASSEY PRESENTS MEN'S FASHION AWARDS

Fifteen "Eagle" awards for "Excellence in Design" of men's sportswear and accessories were presented to as many designers and manufacturers at a fashion show held in New York's Plaza Hotel. This is the fourth annual group of awards sponsored by Caswell-Massey, the 200-year-old American firm of chemists and perfumers. The awards have won increasing recognition in the men's fashion field for the excellence of taste shown and for the trend-setting originality of the designs submitted. This year's winners were selected from a field of over 500 entries from firms both in America and Europe.

Winners were chosen by a board of 18 judges which included some of the leading retail names in the country.

The twelve winners in different categories were:

Ernst Engel for active outerwear; Breier of Amsterdam for sports outerwear; Baker Clothes for dress outerwear; Roman Style for sport jackets; Alfred of New York for sport shirts; David Church for sweaters; Anthony Gesture for slacks; Tucker Ties for neckwear; Thomas Begg for hats; Miller Belts for belts; Jags Unlimited for shoes; and Ralph Destino for jewelry.

The International Award went to Angelo Litrico and a Special Design Award was given to Bill Miller of The Village Squire for his overall creative contribution to the field of men's fashions.

THE CELANESE DATESETTER PROMOTION FOR TEENAGERS



TEENAGERS FOR CELANESE

Ten teenagers from key cities in the U.S. were chosen to participate in the 1961 "Datesetter" promotion of Celanese Fibers Company. They are shown here with Jane Snow, Apparel Advertising Manager for Celanese. During their week's stay in New York, the girls were photographed in dresses made of fabrics woven from Celanese contemporary fibers for a 10-page full color advertisting insert scheduled for the November issue of Seventeen. All ten girls are Fashion Council representatives for a department store in their home area and will appear at the store's "Datesetter" presentation of teen fashions in the fall, a promotion in which approximately 100 stores throughout the country will participate.

U.S. COTTON EXPORTS SHOW 7.6% DROP

U.S. exports of the 1960-61 crop totaled 6,639 million bales (one bale is equivalent to 480-490 pounds of raw cotton). This was a drop of 7.6 per cent from the 7,182 million bales exported from the 1959-60 crop. Exports to Japan accounted for the largest portion of the total, or 1,748 million bales. Out of the 1960-61 crop, India bought 599 thousand bales or 9% of the total crop. France bought 549 thousand bales or 8.3%. Italy's share was 454 thousand bales or 6.8%; W. Germany, 6.3%; Britain, 5.6%.

GEORGE ELBOGEN RECEIVING JAPANESE DECORATION



PHOTOGRAPHED AT THE PRESENTATION CEREMONY IN WHICH GEORGE ELBOGEN WAS DECORATED FOR HIS SERVICES TO THE JAPANESE SILK INDUSTRY. Seated: S. DOH OF THE JAPAN SILK ASS'N; WALTER STRASSBURGER, ISA PRES.; H. VATERLAUS, ISA; CONSUL GENERAL M. KANAYAMA; MR. ELBOGEN. Standing: N. SHIMANOUCHI, CONSUL; M. TAKIGAWA, DEPUTY CONSUL GENERAL; K. YAMADA OF KANEBO; G. SEKI OF GUNZE; S. IMAMURA, CONSUL.

Design Centre Gives British Cottons Fashion Promotion



To an American—observing the vast scale and self-sufficiency of our own textile giants — the British Cotton Board's Design Centre in Manchester may seem like an anomaly. But for 20 years now, this cooperative effort of British textile manufacturers has been servicing the whole industry with increasing acclaim and has become the model for other industry-wide design centers in Britain, including the Council of Industrial Design Centre in London (see AF #52).

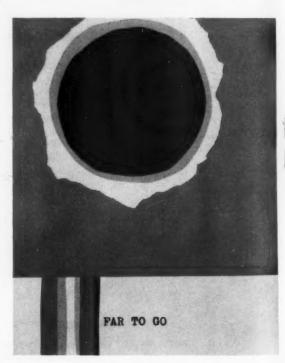
Set up with the two-fold aim of raising the cotton industry's design standards and of promoting cotton as a fashion fabric, the Centre sponsors frequent textile fashion exhibits, holds lectures and forums, introduces the work of new young designers, issues impressive promotional literature and maintains an extensive textile design library.

Its latest effort is a large (17" x 13") and beautifully designed display book titled "Cotton Story 1962" and swatched with representative fashion fabrics from leading British producers. It has been distributed to some 200 apparel manufacturers and 600 retail buyers throughout Britain. On this page we reproduce a few typical leaves from the new book. They reveal a sense of fashion and a level of textile design which is in itself a high tribute to the aims and the success of the "Colour, Design and Style Centre."

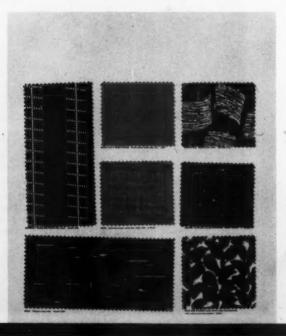


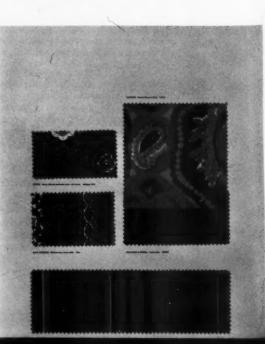












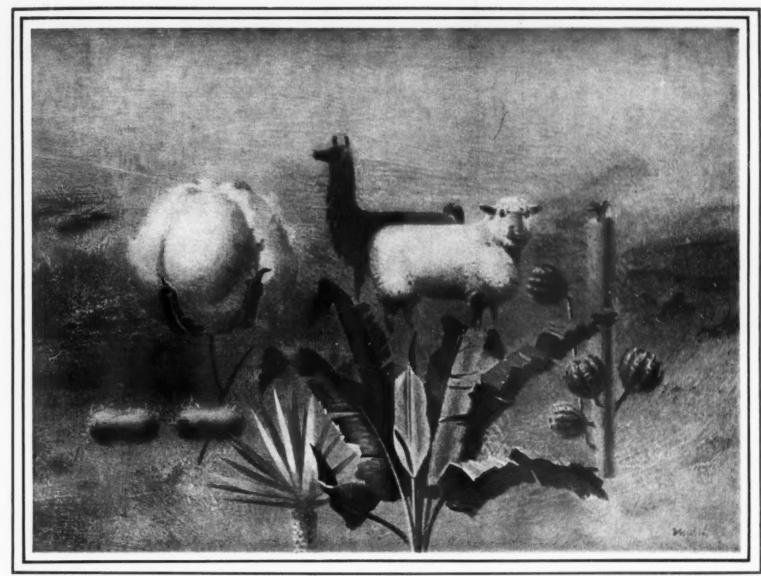


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The ILLUSTRATED AF Encyclopedia of Textiles

Compiled and edited by the Editors of American Fabrics Magazine, the "American Fabrics" (AF) Encyclopedia of Textiles has been brilliantly conceived to answer the long-felt need for a *single-volume* source book which would offer a complete and practical coverage of the *entire textile field*. Here, between two covers, are 700 pages of authoritative information presented in such a way as to make this a standard reference work for active day-to-day use by all people who deal with fiber and fabric products.

AUTHORITIES in various branches of the fiber and fabric industry are unanimous in agreeing that this book represents a milestone in textile publishing. On the editorial side, the vast body of material is presented with great thoroughness yet with a conciseness which makes it easy to read and easy to absorb. On the technical side, each page is both authoritative and up-to-date, since every phase of the work was prepared under the guidance of experts in special areas of textile knowledge. The visual presentation of each section is unique in the field, following the dramatic methods of presentation pioneered by American Fabrics Magazine during its 15 years of publication. Over a thousand illustrations in black and white and 16 pages in full color, supplement the text with the exciting story of textiles and all its processes.

In structure the Encyclopedia is divided into 7 main sections. (1) The Textile Fibers, including a thorough treatment of the new scientific fibers, covers over 200 pages. (2) History & Origins tells the 8000-year history of textiles in 75 pages. (3) Textile Design offers 64 pages of

black and full-color illustrations on the world's historic textiles. (4) The Manufacturing Processes are covered in 90 pages of text and illustration with comprehensive treatments of Spinning, Weaving, Knitting, Lacemaking, Felts and Non-wovens. (5) Fabric Finishing is treated in 100 pages, with detailed discussions of all the modern finishing processes, the story of color dyes and dyeing, plus a complete review of textile printing in its many forms. (6) Specialty Uses of Textiles cover the various non-apparel fabrics, including curtains, draperies, rugs, carpets, sheets, quilts and industrial fabrics. (7) Textile Definitions is devoted to an illustrated 90-page dictionary containing a careful and authoritative listing of the important terms in textile usage.

To increase its usefulness as a day-to-day reference tool the Encyclopedia contains a comprehensive index of 32 pages which has been designed as a quick guide to the vast storehouse of information contained in the body of the book.

The AF Encyclopedia is priced at \$35 per copy . . to AF subscribers only!

(LIST PRICE • \$39.50)

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